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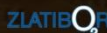
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**KNJIGA SAŽETAKA  
BOOK OF ABSTRACTS**





PLENARNA PREDAVANJA

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## Proučavanje ličnosti: otvorena i dostupna nauka

Psihologija ličnosti proučava stabilnosti i promene u načinu na koji osobe osećaju, misle, žele i ponašaju se u prostoru i vremenu. To je izučavanje individualnih razlika u oblikovanju obrazaca reagovanja na okruženje. S obzirom na kompleksnost izučavanja ličnosti, od velike važnosti je primena otvorenih naučnih metoda koji omogućavaju razmenu tehnika za prikupljanje i analizu podataka, kao i podataka koji proizilaze iz takvih istraživanja. Predstaviću tri takva otvorena istraživačka projekta: međunarodni repozitorijum stavki za procenu ličnosti (International Personality Item Pool - IPIP), u okviru kojeg su stavke za procenu ličnosti postavljene u javni domen i prevedene na najmanje 40 jezika; međunarodnu bazu za procenu kognitivnih sposobnosti (International Cognitive Ability Resource - ICAR), koja isti princip primenjuje na stavke za procenu kognitivnih sposobnosti (IPIP : ličnost = ICAR : sposobnosti), i "open-source" statistički sistem, R, koji omogućava istraživačima da dele računarski kod. Razmotriću primenu stavki iz IPIP-a i ICAR-a, postavljenih na internet pomoću "open-source" softvera, u okviru projekta SAPA (Synthetic Aperture Personality Assessment - sintetizacija podataka za procenu ličnosti), u cilju formiranja velikih (približno 100000 ispitanika x 1500 stavki) matrica, koje se mogu koristiti za validaciju strukture ličnosti i sposobnosti na više nivoa analize, korišćenjem "open source" paketa dostupnih u R-u.

## Personality research: An open and shared science

Personality research is the study of stability and change in how individuals feel, think, want, and behave over time and space. It is the study of individual differences in the patterning of regularities in response to the environment. Given the complexity of personality research, it is helpful to use open methods of science to allow for the sharing of data collection and analytic techniques as well as the sharing of the data resulting in these projects. I will discuss three such open research projects: the International Personality Item Pool (IPIP) which put personality items into the public domain and is available in at least 40 different languages; the International Cognitive Ability Resource (ICAR) which was started to do the same for ability items (IPIP:personality = ICAR:ability), and the open source statistical system, R, which allows researchers to share computer code. I

will discuss the use of items from IPIP and ICAR, presented on the web using open source software as part of the Synthetic Aperture Personality Assessment (SAPA) project to form large (~ 100.000 subjects x 1.500 items) matrices, which may be used to validate personality and ability structures at multiple levels of analysis using open source packages available in R.

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### TwinLife: genetički i socijalni uzroci životnih prilika

U prvom delu svog izlaganja, daću kratak pregled TwinLife studije. Reč je o interdisciplinarnoj, genetički informativnoj, longitudinalnoj studiji razvoja socijalnih nejednakosti. Cilj našeg istraživanja je da objasnimo razvoj socijalnih nejednakosti tokom života uzimajući u obzir ne samo socijalne mehanizme, već i genetičke razlike između pojedinaca, kao i kovarijacije i interakcije oba tipa uticaja, sa psihološkim procesima kao medijatorima. Proučavamo socijalne nejednakosti u šest sfera života: formiranju veština i uspehu u obrazovanju, zapošljavanju, socijalnom kapitalu i integraciji u društvene mreže, društvenoj i političkoj angažovanosti, devijantnim ponašanjima i problemima u ponašanju, i naposljetku mentalnom i fizičkom zdravlju.

Formirali smo reprezentativni uzorak od 4000 parova blizanaca iz Nemačke. U proširenom nacrtu istraživanja blizanačkih porodica, blizanci, njihovi roditelji, braća i sestre, kao i partneri starijih blizanaca, učestvuju u intervjuima koji se sprovede telefonski i u njihovim domovima, popunjavaju psihološke testove i upitnike, i daju detaljne informacije o svom okruženju. Studija obuhvata ispitanike uzrasta od ranog detinjstva (5 godina) do odraslog doba (31 godina), i longitudinalno prati četiri uzrasne kohorte tokom perioda od osam godina (kros-sekvencijalni istraživački nacrt). Prikupljeni podaci biće dostupni kao javno dobro, pružajući međunarodnoj naučnoj zajednici novi set podataka visokog kvaliteta koji nisu dostupni iz drugih izvora.

U drugom delu izlaganja, predstaviću prve preliminarne rezultate koji se odnose na razvoj ličnosti i relacije između ličnosti i zdravlja.

## TwinLife: Genetic and social causes of life chances

In the first part of my presentation I will outline the TwinLife study. This is an interdisciplinary, genetically informative, longitudinal study of the development of social inequalities. The aim of our research is to explain the development of social inequalities over the life course by taking into account not only social mechanisms but also genetic differences between individuals as well as the covariation and interaction of both types of influences, with psychological processes mediating between the two. We study social inequalities in six areas of life: skill formation and educational success, labor market attainment, social capital and social integration into social networks, social and political participation, deviant behavior and behavioral problems, and finally mental and physical health.

We establish a representative sample of 4000 twin pairs living in Germany. In an extended twin family study design, the twins, their parents, siblings, as well as the older twins' partners participate in household and telephone interviews, complete psychological tests and questionnaires, and provide detailed reports about their environments. The study covers the age range from early childhood (five years) to adulthood (31 years) and longitudinally examines four age cohorts over a period of eight years (cross-sequential study design). The data set will be made available as a common good providing the international research community with a new set of high-quality data that do not exist elsewhere. In the second part I will present first preliminary results referring to the development of personality and the relation between personality and health.

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## Osnovi roboterapije i terapije u virtuelnoj realnosti: najnovije tehnologije i novi pravci

Psihoterapija u virtuelnoj realnosti odnosi se na primenu virtuelnih okruženja u procesu standardne psihoterapije (npr. za razne anksiozne poremećaje). U širem smislu, "virtuelno okruženje" obuhvata i online / računarski podržanu psihoterapiju. U užem smislu, "virtuelno okruženje" odnosi se uglavnom na 3D okruženja, što ponekad uključuje i proširenu realnost. U ovom izlaganju, virtuelna realnost biće

shvaćena u širem smislu. Psihoterapija zasnovana na robotima odnosi se na primenu robota u procesu standardne psihoterapije (npr. za poremećaje iz autističnog spektra). Ni psihoterapija u virtuelnoj realnosti niti psihoterapija zasnovana na robotima / roboterapija nisu nove forme ili škole psihoterapije, već je reč o razvoju tehnologije u oblasti klasične psihoterapije (npr. kognitivno - bihejvioralne terapije). Stoga, referentni okvir za predstavljanje tih tehnologija biće empirijski zasnovana psihoterapija, preciznije racionalno-emocionalna i kognitivno-bihejvioralna terapija. Racionalno-emocionalna i kognitivno-bihejvioralna terapija svakako predstavljaju zlatni standard u savremenoj empirijski zasnovanoj psihoterapiji, pri čemu pretpostavljaju da su naši subjektivni, kognitivni, bihejvioralni i psihofiziološki simptomi proizvod naše iskrivljene svesne i nesvesne obrade informacija.

Najpre ću predstaviti osnove psihoterapije u virtuelnoj realnosti i psihoterapije zasnovane na robotima / roboterapije. Zatim ću razmotriti dostignuća u njihovoj kliničkoj primeni, fokusirajući se na tri komponente: (1) ishod [tj. efikasnost (npr. kako funkcionišu u kontrolisanim uslovima) i efektivnost (npr. kako funkcionišu u standardnoj kliničkoj praksi)]; (2) teoriju / mehanizam promene; i (3) ulaganje-efektivnost i ulaganje-dobitak analize. Pregled literature i naša istraživanja biće kritički razmotrena. Na kraju, biće predstavljena ograničenja psihoterapije u virtuelnoj realnosti i psihoterapije zasnovane na robotima / roboterapije, i biće predložene nove smernice za buduća istraživanja.

### Fundamentals of robotherapy and virtual reality psychotherapy: The state of the art and new directions

Virtual reality psychotherapy refers to the use of virtual environments in the process of standard psychotherapy (e.g. for various anxiety disorders). In a large definition “virtual environment” includes also online/computer-based psychotherapy. In a narrow definition “virtual environment” refers mainly to 3D environments, sometimes also including augmented reality. We will use here virtual reality psychotherapy in its large definition. Robot-based psychotherapy refers to the use of robots in the process of standard psychotherapy (e.g. for autism spectrum disorder). Neither virtual reality psychotherapy nor robot-based psychotherapy/robotherapy are new forms or schools of psychotherapies, but they are technological developments in the standard psychotherapy field (e.g., cognitive-behavioral psychotherapies). Therefore, the framework of their presentation will be that of evidence-based psychotherapy, more precisely

rational-emotive and cognitive-behavioral therapy. Indeed, rational-emotive and cognitive-behavioral therapy is one of the golden standards in current evidence-based psychotherapy, assuming that our subjective, cognitive, behavioral and psychophysiological symptoms are generated by our distorted conscious and unconscious information processing.

I will present first the fundamentals of virtual reality psychotherapy and robot-based psychotherapy/robototherapy. Then I will discuss the state of the art regarding their clinical applications, focusing on three components: (1) outcome [i.e., efficacy (e.g., how they work in controlled conditions) and effectiveness (e.g., how they work in standard clinical practice)]; (2) theory/mechanism of change; and (3) cost-effectiveness and cost-benefit analyses. Both literature review and our own research program will be critically analyzed. In the end, limitations of virtual reality psychotherapy and robot-based psychotherapy/robototherapy will be discussed and new directions for future research will be proposed.

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Petar Milin

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### Nacrt za jednu funkcionalnu teoriju obrade jezika

Rescorla-Wagner model učenja je stvorio uslove neophodne za promenu paradigme u istraživanjima ponašanja. Za razliku od mehaničkog asociranja stimulusa, ovaj model je učenje definisao kao adaptivnu funkciju organizma koja omogućava razlikovanje (diskriminaciju) relacija između događaja u okruženju. Drugačije rečeno, ovakvo diskriminaciono učenje predstavlja osnovnu funkciju organizma, sa ciljem reprezentovanja sveta i uspešnog preživljavanja u njemu. Neke novije studije pokazale su da prirodna selekcija favorizuje Rescorla-Wagner učenje, nasuprot drugim, složenijim i zahtevnijim tipovima učenja.

Tokom poslednjih desetak godina, diskriminaciono učenje predstavlja model kojim je moguće objasniti različite fenomene u oblasti jezičkog ponašanja, od usvajanja stranog jezika i učenja jezičkih neregularnosti, do leksičkog procesiranja, uopšte. Sledeći pomenutu liniju istraživanja, izlaganje ću započeti predstavljanjem računarskog modela Naivnog diskriminacionog učenja (Naive Discriminative Learning – NDL), koji je inicijalno primenio Rescorla-Wagner pravilo u cilju objašnjenja fenomena obrade reči. Zatim ću izložiti modifikacije modela i ilustrovati

prednosti u objašnjavanju podataka dobijenih u eksperimentima. Izlaganje ću zaključiti diskusijom o diskriminacionom učenju kao produktivnom eksplanatornom okviru za razumevanje nekih poznatih fenomena u obradi reči: susedstva, učestalosti i doba usvajanja reči.

### An outline for a functional theory of language processing

With the Rescorla-Wagner learning rule a paradigm shift was proposed which emphasized that conditioning is not a mechanical association between stimuli, but an adaptive function of an organism that learns to discriminate relations among events in its environment. In other words, discrimination learning that occurs constitutes that organism's primary means for representing the world and successfully surviving in it. Some recent studies show that the Rescorla-Wagner rule is also favored by natural selection, in comparison to more greedy types of learning.

In the last decade discrimination learning has shown great success in explaining a wide range of behavioral phenomena in language, from L2 acquisition, to language irregularities, and lexical processing. Following this line of research, I will start by presenting the Naive Discriminative Learning (NDL) computational model, which initially applied the Rescorla-Wagner rule to predict the costs associated with lexical processing. I then introduce refinements of the model and illustrate its strengths in accounting for experimental data. I shall conclude with the discussion of the explanatory potentials of NDL by redefining some well-known effects in language processing: form neighborhood, frequency, and age-of-acquisition.





BIHEJVORALNO-GENETIČKE STUDIJE  
U SRBIJI I HRVATSKOJ

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### A meta-analysis on personality heritability

The aim of this meta-analysis was to systematize available findings in the field of personality heritability and test for possible moderator effects of study design, type of personality model, and gender on personality heritability estimates. A total of 134 primary studies with 190 potentially independent effect sizes were identified. After exclusion of studies that did not meet inclusion criteria and/or met one of the exclusion criteria, the final sample included 62 independent effect sizes, representing more than 100 000 participants of both genders and all ages. Data analyses were performed using random effects model, software program R, package metafor. The average effect size indicated that 40% of individual differences in personality are due to genetic, while 60% are due to environmental influences. Moderator analyses showed that personality model and gender were not significant moderators of personality heritability estimate, while study design was a significant moderator with twin studies showing higher estimates, .47, compared to family and adoption studies, .22. To our knowledge, this study is the first to empirically test and confirm moderator effect of study design on heritability estimates in the field of personality using standard meta-analytic procedures.

**Keywords:** personality, behavior genetics, heritability, meta-analysis

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### Croatian twin study of physical activity and personality

Recent meta-analysis (Wilson & Dishman, 2015) has found significant mean correlation between physical activity and extraversion, neuroticism, conscientiousness and openness. The aim of this study was to explore the relationship between personality and physical activity (PA) in a sample of Croatian twins. Because it is a twin sample, we could examine the relationship between physical activity and personality on a phenotypic level, as well as explore if the same genetic and environmental factors contribute to physical activity and personality. Data were collected from 339 twin pairs (105 MZ and 234 DZ) aged between 15 and 22 years. On the phenotypic level significant correlations between physical activity and two personality traits (neuroticism and extraversion) were found. Univariate analyses indicated substantial heritability of physical activity as well as two personality traits. Therefore we run Cholesky decomposition to assess how much of the variance in physical activity is explained by personality traits, neuroticism and extraversion. Results of Cholesky decomposition indicated that heritable differences in physical activity were mostly due to specific genetic and environmental influences and only in part accounted for by the genetic architecture of neuroticism and extraversion.

**Keywords:** twin study, physical activity, personality

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## Heritability of Five-factor personality domains: Comparison of the Serbian and Croatian twin studies

The aim of this study was to explore heritability of personality traits in Croatian and in Serbian population using the twin design. The Croatian sample consisted of 339 twin pairs (105 MZ and 234 DZ), aged between 15 and 22. The Serbian sample consisted of 211 twin pairs (73 MZ and 138 DZ), aged between 16 and 60. In both samples, personality traits were organized using Five-factor Model framework and assessed by NEO personality scales in self-report form. In Croatian sample the shorter NEO-FFI questionnaire was used, while in Serbian sample data were available for the longer NEO-PI-R version of the questionnaire.

Analyses were performed using Mx software with two data sets analyzed as separate groups. Results indicate that personality traits are moderately heritable both in the Croatian and in the Serbian populations, with slightly higher estimates in the Croatian sample. However, while Croatian data suggest possible non-additive genetic effect and no effect of the shared environment, Serbian data suggest probable additive genetic influence and possible shared environmental influence. Since both samples are relatively small, in order to obtain more conclusive results about cultural differences, additional data are needed.

Keywords: personality, heritability, twin study, culture

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## Depresija i konstrukti reformulisane Teorije osetljivosti na potkrepljenje: postoji li (genetička) veza?

Iako rezultati brojnih studija u oblasti reformulisane Teorije osetljivosti na potkrepljenje ukazuju na fenotipsku povezanost između afektivnih poremećaja i dimenzija izbegavajućeg ponašanja, malo se zna o njihovim zajedničkim i specifičnim genetičkim i sredinskim faktorima. Osnovni cilj ovog istraživanja je utvrđivanje genetičkih i sredinskih činilaca depresije i dimenzija BIS, Bežanje i Blokiranje, uzimajući u obzir i fenotipske kovarijacije ovih konstrukata. Uzorak ispitanika obuhvatio je 73 para monozigotnih (59 ženskih) i 138 parova dizigotnih blizanaca (75 ženskog pola, 29 muškog), prosečne starosti 24,68 godina (SD = 7.73). Za procenu dimenzija revidiranog Grejovog modela ličnosti, primenjen je 29-ajtemski Uпитnik osetljivosti na potkrepljenje (UOP), pri čemu su u analize uvršteni skorovi na skalama BIS, Bežanje i Blokiranje. Depresija je procenjivana istoimenom skalom Uпитnika za brzu psihijatrijsku dijagnostičku procenu (PDSQ), koja obuhvata 21 stavku. Efekti pola, kao i linearni i kvadratni efekti starosti, parcijalizovani su pre uvrštavanja varijabli u analize. U cilju procene genetičkih i sredinskih efekata na osobine ličnosti i depresiju, testirani su multivarijantni biometrijski modeli nezavisnih putanja zajedničke putanje. Oba modela obuhvataju opšte i specifične aditivne genske (A), deljene sredinske (C) i nedeljene sredinske činioce (E). Testirani su i redukovani modeli, koji sadrže samo A i E faktore. Najboljim se pokazao ACE model zajedničke putanje ( $\chi^2(54) = 91.53$ ,  $p < .001$ ; CFI = 0.91; TLI = 0.91; RMSEA = 0.058 (0.036 – 0.078), AIC = 127.51). Zasićenja svih varijabli na zajedničkom latentnom faktoru su značajna, u rasponu od .41 za depresiju do .73 za BIS. Zajednički aditivni genski činoci (Ac) objašnjavaju zanemarljiv procenat fenotipske varijanse (1% za BIS i Blokiranje, 0% za Bežanje i depresiju). Specifični aditivni genski činoci (As) objašnjavaju 39% fenotipske varijanse depresije, zajednički efekti deljene sredine (Cc) 9%, specifični efekti deljene sredine (Cs) 15%, zajednički efekti nedeljene sredine (Ec) 7%, a specifični efekti nedeljene sredine (Cs) 29%. Sredinski činoci objašnjavaju najveći procenat fenotipske varijanse dimenzija BIS (Es = 34%, Cc = 29%, Ec = 23%; As = 13%), Bežanje (Es = 56%, Cc = 13%, Ec = 10%; As = 20%) i Blokiranje (Es = 29%, Cc = 28%,

$E_c = 22\%$ ,  $C_s = 19\%$ ;  $A_s = 1\%$ ). Zajednički i specifični činioci nedeljene sredine objašnjavaju najveći procenat fenotipske varijanse dimenzija rRST, što upućuje na potencijalnu važnost procesa učenja u formiranju i manifestacijama obrazaca izbegavajućeg ponašanja. Fenotipska povezanost između depresije i dimenzija izbegavajućeg ponašanja može pripisati pre svega sredinskim činiocima, dok je depresija pod značajno većim genetičkim uticajem od osobina ličnosti. Ovakvi rezultati otvaraju pitanja o potencijalno različitim determinantama normalnih i patoloških obrazaca ponašanja.

Rad je nastao u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije (ON179006).

*Ključne reči:* depresija, revidirana Teorija osetljivosti na potkrepljenje, bihevioralna genetika

## Depression and the constructs of the revised Reinforcement Sensitivity Theory: Is there a (genetic) link?

Although a number of studies in the field of the revised Reinforcement Sensitivity Theory point to phenotypic correlations between affective disorders and avoidant behavior, little is known about their common and specific genetic and environmental factors. The principal goal of this study is to examine the genetic and environmental influences on depression and the dimensions BIS, Flight and Freeze, taking into account their phenotypic covariances. The sample comprised 73 monozygotic (59 female) and 138 dizygotic (75 female, 29 male) twin pairs, of average age of 24.68 years ( $SD = 7.73$ ). The dimensions of the revised Gray's model were measured by the Reinforcement Sensitivity Questionnaire (RSQ), whose three scales (BIS, Flight, and Freeze) were used in the analyses. Depression was assessed by the 21-item Depression scale of the Psychiatric Diagnostic Screening Questionnaire (PDSQ). Effect of sex, as well as linear and quadratic age effects, were partialled out prior to the analyses. In order to determine the genetic and environmental effects on personality traits and depression, multivariate biometric "independent pathways" and "common pathways" models were tested. Both models comprise common and specific effects of additive genes (A), shared environment (C), and non-shared environment (E). Reduced models, containing only A and E factors, were tested as well. The best-fitting model was the ACE common pathways mode  $l(\chi^2(54) = 91.53, p < .001; CFI = 0.91; TLI = 0.91; RMSEA = 0.058 (0.036 - 0.078), AIC = 127.51$ ). The loadings on the common latent factor span

from .41 for depression to .73 for BIS. Common additive genetic factors account for a negligible amount of phenotypic variance (1% for BIS and Freeze, 0% for Flight and depression). Specific additive genetic factors (As) account for 39% of phenotypic variance of depression, while common shared environment (Cc) explains 9%, specific shared environment (Cs) 15%, common non-shared environment (Ec) 7%, and specific non-shared environment 29%. Phenotypic BIS variance is accounted for primarily by environmental factors (Es = 34%, Cc = 29%, Ec = 23%; As = 13%), similarly to Flight (Es = 56%, Cc = 13%, Ec = 10%; As = 20%) and Freeze (Es = 29%, Cc = 28%, Ec = 22%, Cs = 19%; As = 1%). Common and specific environmental effects account for the largest amount of rRST dimensions' variance, pointing to the potential importance of learning processes in shaping and expression of avoidant behaviors. The results suggest that the phenotypic covariance between avoidance and depression can be attributed primarily to environmental factors, while depression is under substantially larger genetic influence than personality traits. Such results point to the possible differences in the underlying mechanisms of normal and abnormal behavioral patterns.

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**Keywords:** depression, revised Reinforcement Sensitivity Theory, behavioral genetics

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## Genetički i sredinski činioci inteligencije i verbalne fluentnosti

Dosadašnja istraživanja nisu dala konzistentne rezultate kada je u pitanju njihova povezanost egzekutivnih funkcija i opšte kognitivne sposobnosti. Dok jedan broj autora ne pronalazi prisustvo značajne povezanosti ovih koncepata, drugi pronalaze vezu opšte intelektualne sposobnosti sa gotovo svim merama egzekutivnih funkcija. Imajući u vidu ove nedoumice, osnovni cilj ovog istraživanja je utvrđivanje zajedničkih i specifičnih genetičkih i sredinskih uticaja na opštu kognitivnu sposobnost i verbalnu fluentnost. Istraživanje je sprovedeno na uzorku od 73 para monozigotnih (59 ženskih) i 138 parova dizigotnih blizanaca (75 ženskog pola, 29 muškog), prosečne starosti 24,68 godina (SD = 7.73). Opšta kognitivna sposobnost procenjena je Ravenovim progresivnim matricama (napredna verzija). Verbalna fluentnost procenjena je Testom verbalne fluentnosti, koji obuhvata tri zadatka fonemske (navođenje reči koje počinju slovima S, K i L tokom 1 minuta) i jedan zadatak kategorijalne fluentnosti (navođenje što većeg broja različitih životinja tokom 1 minuta). U analize su uvrštene tri varijable - skor na Ravenovim progresivnim matricama, jedinstvena mera fonemske fluentnosti (ukupan broj reči u jedinici vremena za sva tri fonema) i mera kategorijalne fluentnosti (broj pojmova u jedinici vremena). Genetički i sredinski uticaji na opštu kognitivnu sposobnost i verbalnu fluentnost proveravani su multivarijantnim biometrijskim modelima nezavisnih putanja i zajedničke putanje, koji obuhvataju opšte i specifične aditivne genske (A), deljene sredinske (C) i nedeljene sredinske činioce (E). Testirani su puni (ACE) i redukovani (AE) modeli. Najbolji fit imao je AE model zajedničke putanje ( $\chi^2(32) = 54.02$ ,  $p < .01$ ; CFI = 0.92; TLI = 0.92; RMSEA = 0.064 (0.037 – 0.089), AIC = 79.02). Sve varijable imaju značajna zasićenja latentnim faktorom, pri čemu se vrednosti kreću u rasponu od .40 za opštu kognitivnu sposobnost do .78 za kategorijalnu fluentnost. Fenotipska varijansa opšte kognitivne sposobnosti u najvećoj meri je objašnjena aditivnim genetičkim faktorima (15% opšti, 67% specifični), dok zajednički nedeljeni sredinski uticaji



objašnjavaju 1%, a specifični 17% varijanse. Varijansu kategorijalne fluentnosti objašnjavaju zajednički aditivni genski (57%), specifični (40%) i zajednički nedeljeni sredinski faktori (3%). Fonemska fluentnost, uz zanemarljiv efekat zajedničkih faktora nedeljene sredine (1%) u gotovo podjednako meri objašnjena je specifičnim nedeljenim sredinskim uticajima (35%), te specifičnim (32%) i zajedničkim aditivnim genskim efektima (31%). Dobijeni rezultati pokazuju da, iako po svojoj prilici postoji zajednički set gena koji doprinose kovarianju među korišćenim merama, postoje genetički uticaji specifični za ispitivane konstrukte, a koji doprinose razlici među njima.

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*Ključne reči:* verbalna fluentnost, opšta kognitivna sposobnost, bihevioralna genetika

## Hereditary and environmental factors of intelligence and verbal fluency

Previous research has not provided consistent results regarding the nature of the correlation between the executive functions and general cognitive ability. While a number of authors have not found a significant correlation between the two, others have found a connection between general cognitive ability and almost all measures of executive functions. Having these issues in mind, the aim of this study is determining the hereditary and environmental influences on general cognitive ability and verbal fluency. The research sample consisted of 73 monozygotic (59 female) and 138 dizygotic (75 female and 29 male) twin pairs, with a mean age of 24.68 (SD = 7.73) years. General cognitive ability was assessed by Raven's progressive matrices (advanced form), while verbal fluency was assessed by using The test of verbal fluency, consisting of 3 tasks for testing letter fluency (listing of words beginning with the letters S, K and L in one minute) and one task for testing categorical fluency (naming as many different animals in one minute's time as possible). Three variables were used in the analysis – Raven's progressive matrices score, singular measure of letter fluency (overall number of words per unit of time for all three letters) and a measure of categorical fluency (number of words per unit of time). Hereditary and environmental influences on cognitive ability and verbal fluency were considered using multivariate biometrical independent and common pathways models, which include general and specific additive genetic

influences (A), shared environmental (C) and non-shared environmental (E) influences. Complete (ACE) and reduced (AE) models were tested. The AE common pathways model had the best fit ( $\chi^2(32) = 54.02$ ,  $p < .01$ ; CFI = 0.92; TLI = 0.92; RMSEA = 0.064 (0.037 – 0.089), AIC = 79.02). All variables had significant loadings on the latent factor, with values ranging from .40 for general cognitive ability to .78 for categorical fluency. The phenotype variance of general cognitive ability was explained mostly by additive genetic factors (15% general, 67% specific), while overall non-shared environmental factors explained 1% and specific non-shared factors 17% of variance. Categorical fluency variance was explained by overall additive genetic factors by 57%, specific genetic factors by 40% and overall non-shared environmental factors by 3%. Letter fluency was mainly explained by specific non-shared environmental factors (35%) and specific (32%) and additive genetic factors (31%) with an inconsequently low influence of overall non-shared environmental factors (1%). Results indicate that, in spite of the apparent existence of a shared gene set which contributes to the covariation of the used measures, there are certain genetic influences specific to the observed constructs which contribute to the difference between them.

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**Keywords:** executive functions, general cognitive ability, behavioral genetics



## ČINIOCI RADNE USPEŠNOSTI

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## How do work conditions and vacations influence employees' health and well-being?

Job characteristics influence employees' work satisfaction, efficiency and also their well-being. Vacation is a relatively long period of rest and offers an opportunity to recover from work-overload, stress, and other negative impacts work may have on employees. Autonomy to engage in behaviors of one's own choice, relatedness to friends and family, and the experience of positive emotions associate with vacation is expected to boost the positive impact of vacation on health and well-being (later as H&W) beyond the sheer liberation from demands. In our study we were interested how work conditions and style of vacation activities (independent variables) relate to changes in H&W during and after a vacation period (dependent variables). In a longitudinal study 30 employees from a telecommunication company reported their H&W on six indicators (sleep quality, health status, mood, fatigue, tension, energy level and satisfaction) (De Bloom, Kompier, Geurts, De Weerth, Taris, & Sonnentag, 2009) before, during, and after vacation. We scheduled several measurement occasions before, during, and after vacation to gather enough information to calculate the average grade of each observed period. They also full-filled Job Content Questionnaire (Karasek, 1985), and gave us the descriptive information of their planned vacations.

We conducted Wilcoxon signed rank test and found changes of employee H&W before, during, and after vacation period, but there were no statistically important differences before and after vacation. The correlations between duration of vacation and satisfaction with vacation was important but negative ( $r = -.473$ ,  $p = .011$ ). On the other hand the type of vacation (active or passive), company during vacation (family, friends, single), and vacation's satisfaction were not connected with self-reported H&W of the employee. Only type of vacation can predict employee's well-being during the vacation period ( $F = 4.964$ ,  $p = .035$ ;  $\beta = -.400$ ,  $t = -2.228$ ,  $p = .035$ ).

In the second step we searched for connections between job content, work hours and well-being during vacation period. Only one important finding was recognized.

The group who works without fixed schedule reported lower fatigue level during vacation than the group with fixed or less flexible schedule ( $M = 1.73$ ,  $N = 13$ ;  $M = 2.31$ ,  $N = 14$ ). For the group with flexible schedule there are statistically important differences in fatigue levels before and between vacation (Wilcoxon  $Z = -2.875$ ,  $p = .004$ ), and also between and after vacation (Wilcoxon  $Z = -2.982$ ,  $p = .003$ ), suggesting the vital importance of vacation for those working in unsteady working hours. Other connections we could not confirm. Our study suggests that vacation has positive effect on H&W, but employees' feelings are mainly not influenced by different job characteristic.

**Keywords:** work, employee, vacation, well-being, health

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### Self-control as the moderator of the relationship between implicit aggressiveness and counterproductive work behaviors

Recently, James and LeBreton (2012) identified implicit aggression as an important predictor of counterproductive work behaviors (CWBs), and proposed the Conditional Reasoning Test for Aggression (CRT-A) for the identification of implicitly aggressive individuals. The CRT-A is an innovative personality assessment instrument that is used to identify aggressive individuals by observing their performance on a set of inductive reasoning problems. These problems are designed to measure the respondents' motive-based implicit biases and, therefore, serve as a measure of personality. The CRT-A was constructed under the assumption that aggressive individuals use specific justification mechanisms to reconcile the motive to aggress with the motive to hold favorable view of self. For example, aggressive individuals see their aggressive behaviors as completely reasonable considering that they sense hostility and danger in others' behavior (i.e., they have hostile attributions bias), and see themselves as oppressed individuals acting in self-defense (victimization by powerful others bias). These justification mechanisms are expressed in some of the solutions offered on the

conditional reasoning problems and are likely to be chosen by the individuals who often employ these mechanisms in reality.

The CRT-A has sound psychometric characteristics, and was shown to be important for understanding and predicting CWBs over and above self-report personality measures (James & LeBreton, 2012; Berry, Sackett, & Tobares, 2010). It has been evaluated as a „groundbreaking“ approach to personality assessment by the American Psychological Association (APA, 2013, Spring, p. 4), and „a model for psychometric, conceptual, and theory-based implicit association measurement“ (Landy, 2008, p. 390).

Considering that the CRT-A still represents a novel method of personality assessment, there is a lack of studies testing boundary conditions and contingencies for the effect of implicit aggressiveness on CWBs. In this presentation we will report the results of a study in which we tested whether dispositional self-control moderates the relationship between implicit aggressiveness, as measured with the CRT-A, and CWBs. We expected the relationship between the CRT-A scores and CWBs to be stronger for employees with lower self-control. A sample of 202 employees from various organizations participated in our study. The participants completed the research package consisting of the CRT-A, a self-control scale and self-reported occurrence of CWBs. Additionally, we collected ratings about the participants' self-control and CWBs from their co-workers. The results of our analyses indicated the existence of expected moderating effect for self-reported CWBs, irrespective whether self-control was self- or other-reported. However, the moderation effect was insignificant when other-reports of CWBs were used as the criteria.

**Keywords:** Conditional Reasoning Test for Aggression, trait self-control, counterproductive work behaviors

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## Medijacijski efekt emocionalne inteligencije na radnu uspješnost

Rukovođenje je jedna od najčešćih tema istraživanja u organizacijskoj psihologiji. U literaturi je moguće pronaći različita gledišta o ulozi rukovoditelja u poboljšanju radne uspješnosti, kao i pozitivnog utjecaja na radnike u organizacijama. Neka od njih su usmjerena na ispitivanje osobina ličnosti rukovoditelja, neka na karakteristike radne situacije, dok su druga usmjerena na „proces“ između rukovodilaca i podređenih. Ali, osnovni cilj svakog od njih je razumjeti kako, zašto i kada će to utjecaj rukovodilaca na podređene radnike biti pozitivan. Emocionalna inteligencija ima „... poseban značaj u procesu rukovođenja koje se osniva na činjenici da je rukovođenje proces prepun emocija, podjednako iz perspektive rukovodioca kao i podređenih“ (George, 2000, p. 1047). Zato ne iznenađuje podatak da mnoge studije dolaze do zaključka o značajnom doprinosu emocionalne inteligencije (EI) u procesu rukovođenja. Snažnije su povezanosti nađene sa samoprocjenama (ili osobinama, odnosno tzv. miješanim modelima EI), negoli s testovima EI (EI kao sposobnosti).

Sljedeći korak u istraživanjima je pronaći kakva je uloga EI u radnoj uspješnosti. Suvremene empirijske i meta-analitičke studije su navodile (iznenađujuću) snažnu povezanost samoprocjena EI i radne uspješnosti. Nadalje, samoprocjene EI rukovoditelja prognozirale su radnu uspješnost povrh osobina ličnost i kognitivnih sposobnosti.

Slijedom navedenoga, testirali smo hipotezu o indirektnom efektu samoprocjene EI rukovoditelja na radni učinak, pa smo proveli analizu traga (path analyses) gdje su različite facete samoprocjena EI rukovoditelja bile prediktori, procjena kvalitete rukovođenja od strane podređenih bila medijatorska varijabla, a radni učinak kriterij. Upitnik emocionalnih vještina i kompetentnosti (UEK-45: Takšić, 2001) kao mjera samoprocjene EI koji se bazira na Mayer – Saloveyovom modelu, primijenjen je na 83 rukovoditelja timova (poslovođe). Kvalitetu rukovođenja je procjenjivalo 415 radnika na 14 dimenzija deriviranih iz Yuklove taksonomije. Učinak tima je bio izražen kroz unaprijed definirane norme.

Rezultati su pokazali značajnu korelaciju samoprocjenjene EI rukovoditelja i: a) kvalitete rukovođenja koju su procijenili podređeni ( $r = .61$ ), b) produktivnosti tima ( $r = .25$ ). Također, relativno visoka je bila korelacija između kvalitete rukovođenja i produktivnosti tima ( $r = .51$ ). Kvaliteta rukovođenja i EI rukovoditelja zajedno su objašnjavale 33% varijance produktivnosti tima. Međutim, najzanimljiviji je bio nalaz da je samo nešto manje od 13% varijance jedinstveni doprinos kvalitete rukovođenja, a gotovo 20% varijance rezultat medijacijskog efekta EI, što je potvrdilo hipotezu o jakom medijacijskom efektu samoprocjenjene EI na radnu uspješnost.

*Ključne reči:* emocionalna inteligencija, radna uspješnost, kvaliteta rukovođenja, produktivnost tima, medijacijski efekt

### Mediating effect of emotional intelligence on job performance

Leadership is one of the most researched topics in the organizational sciences. In the literature reviews there could be found numerous of perspectives on the role of leaders in improving performance, and in positive influence to employees in their organizations. Some of them are focused to the traits of leader, some to the characteristics of situational context, and others have focused on a “process” between leaders and followers. But, all of them have the basic goal to understand how, why, and when leaders will have positive influence on followers. Emotional intelligence has “...the special relevance to leadership revolves around the fact that leadership is an emotion-laden process, both from leader and a follower perspective” (George, 2000, p. 1047). Taking it into account, it is not surprise that many studies have found significant contribution of emotional intelligence (EI) in leadership process. Higher correlations have emerged with self-rating (trait or mixed EI), than with EI tests (ability EI).

Next step was to find out the role of EI in job performance. Recent empirical and meta-analytical studies have claim (surprisingly) strong relationship between self-reported emotional intelligence and job performance. Furthermore, self-reported EI predict job performance over and above personality traits, cognitive abilities and self-perceptions.

In order to test a hypothesis about indirect effect of self-reported EI on job performance, path analyses was performed with supervisors' self-reported EI facets (predictors), followers' perceived quality of supervising (mediator) and team performance (criterion). Self-reported measure (Emotional, Skills and



Competence Scales: Takšić, 2001) of EI based on Mayer and Salovey model were applied on 83 leaders of teams (supervisors). Four hundred fifteen followers have estimated leaders' quality of supervising on fourteen dimensions derivate from Yukl's taxonomy. Team performance was recorded as a productivity (percentage of pre-defined norms achieved).

The results have shown significant correlations between leaders' self-reported EI and: a) the quality of supervising perceived by their followers ( $r = .61$ ), and b) team productivity ( $r = .25$ ). Also, relatively strong relationship between quality of supervising and team productivity was found ( $r = .51$ ). The quality of supervising and emotional intelligence together has explained 33% of variance of team productivity. But most interesting finding was that only less than 13% is unique contribution of perceived quality of supervising, and almost 20% is due to mediating effect of the emotional intelligence (competencies), confirming strong mediating effect of self-reported EI on job performance.

**Keywords:** emotional intelligence, job performance, quality of supervising, team productivity, mediating effect

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### Odnos opće mentalne sposobnosti, osobina ličnosti i pasivnog stila rukovođenja

Cilj istraživanja bio je ispitati povezanost opće mentalne sposobnosti i pet osobina ličnosti s pasivno izbjegavajućim stilom rukovođenja. Pasivni stil određen je prema transformacijskoj teoriji punog raspona rukovođenja (Bass, 1985; Bass & Avolio, 1993) u kojoj je određen kao krajnje neaktivan i neučinkovit obrazac ponašanja rukovoditelja. Na uzroku od 177 rukovoditelja testom fluidne inteligencije ispitana je razina kognitivne sposobnosti, a petofaktorskim upitnikom osobine ličnosti.

Pasivni stil rukovođenja ispitan je Višerazinskim upitnikom rukovođenja MLQ 5X za dva izvora procjene: samoprocjenama rukovoditelja i prosječnim procjenama dva podređena radnika. Relativni doprinos prediktorskih varijabli u objašnjenju varijance pasivnog stila ispitan je pod hijerarhijskim regresijskim modelom za dva izvora procjene. U tri koraka prema unaprijed određenom redosljedu za oba izvora procjene uvedeno je tri skupa prediktorskih varijabli: demografske varijable dobi, spola i obrazovanja u prvom koraku, mentalna sposobnost u drugom koraku i pet faktora ličnosti: ekstraverzija, emocionalna stabilnost, savjesnost, ugodnost i otvorenost za iskustva u trećem koraku. Rezultati provedenih analiza ukazali su da ukupni skup prediktora statistički značajno objašnjava varijancu pasivnog stila kojeg su procjenjivali sami rukovoditelji (27%). Rezultati hijerarhijske analize za samoprocjene rukovoditelja ukazuju da rukovoditelji procjenjuju da pasivnim stilom više rukovode osobe ženskog spola, starije dobi, više razine introvertiranosti i manje savjesnosti. Rezultati hijerarhijske analize za prosječne procjene podređenih ukazuju da ukupan prediktorski skup varijabli statistički značajno objašnjava varijancu pasivnog stila (23%). Rezultati analize za prosječne procjene podređenih ukazuju da podređeni pasivni stil više povezuju s osobama muškog spola, starije dobi i nešto viših kognitivnih sposobnosti.

*Ključne reči:* mentalna sposobnost, osobine ličnosti, pasivni stil rukovođenja

### Relations of general mental ability and personality traits with passive leadership style

The purpose of this study was to evaluate relations of mental ability and five personality traits with passive-avoiding leadership style in the context of the transformational full range leadership model (Bas, 19985; Bass i Avolio, 1993). The passive style in the model is defined as the non-effective and non-active leader's behaviors. On the sample of 177 supervisors a cognitive measure and self-report questionnaire were used to assist in identifying general mental ability and five personality traits. Multifactor leadership questionnaire MLQ X5 was used for multi-measures, with self-ratings and subordinates-ratings. A sequence of hierarchical regression analyses was performed in three step in order to examine whether gender, sex and education (1 step), mental ability (2 step) and big five personality traits: extraversion, emotional stability, agreeableness, conscientiousness and openness (3 step) made the unique contribution to the prediction of passive style. The results obtained in hierarchical regression analysis of self-ratings showed that introversion, low conscientiousness with gender (older), sex (female) offer a

significant explanation of passive style (27%), whereas the results of subordinates-ratings showed that gender (older), sex (male) and high general mental ability offer a significant explanation of passive style (23%).

Keywords: mental ability, personality traits, passive leadership style

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### Spremnost na preuzimanje rizika u organizaciji: efekat ličnosti i motiva

Preuzimanje rizika predstavlja važan faktor u organizacionom kontekstu jer je usko povezan sa donošenjem odluka, pa samim tim i sa svim procesima u okviru organizacije, kao i posledicama do kojih dovodi. S obzirom na to da je povezanost crta ličnosti i spremnosti na preuzimanje rizika dokumentovana u literaturu, postavlja se pitanje da li to važi i u poslovnom okruženju u kome važnu ulogu igraju i motivi. Cilj ovog istraživanja je da utvrdi relativan doprinos crta ličnosti i motiva u predikciji spremnosti za preuzimanje rizika u poslovnom okruženju. U istraživanju je učestvovao 101 ispitanik (55% muškog pola) zaposlen u državnom sektoru. Ispitanici su popunjavali Hoganovu bateriju testova koja se sastoji od 3 upitnika. Za procenjivanje crta ličnosti korišćen je Hogan Personality Inventory koji se sastoji od 182 dihotomna ajtema (da/ne) ( $\alpha = .76$ ) i koji meri 7 osobina ličnosti (Stabilnost, Ambicija, Društvenost, Interpersonalna senzitivnost, Sistematičnost, Radoznalost i Pristup učenju). Spremnost na preuzimanje rizika u poslovnom okruženju merena je subskalom Manipulativnost Hogan Development Survey upitnika, koja se sastoji od 14 dihotomnih ajtema (da/ne) ( $\alpha = .59$ ). Motivi su procenjivani pomoću Motives Values Preferences Inventory koji sadrži 200 ajtema 3-stepene skale Likertovog tipa ( $\alpha = .76$ ) i koji meri 10 motiva (Hedonizam, Moć, Afilijacija, Altruizam, Sigurnost, Nauka, Estetika, Novac, Tradicija i Priznanje). Rezultati regresione analize pokazuju da crte ličnosti i motivi objašnjavaju 56% ( $F(17,83) = 6.091, p < .01$ ) varijanse spremnosti na preuzimanje rizika, pri čemu se kao značajni prediktori među crtama ličnosti izdvajaju Sistematičnost ( $\beta = -.29, p < .01$ ) i Radoznalost ( $\beta = .33, p < .01$ ), a među motivima Hedonizam ( $\beta = .29, p < .01$ ) i Moć ( $\beta = .24, p < .05$ ). Dakle, rezultati

istraživanja pokazuju da su osobe koje imaju nizak skor na Sistematičnosti, visok na Radoznalosti i kojima su glavni pokretači zadovoljstvo i moć, spremnije na preuzimanje rizika u poslovnom okruženju.

*Ključne reči:* spremnost na preuzimanje rizika, Hoganova baterija testova, crte ličnosti, motivacija za rad

### Willingness to take risk in organization: Effect of personality and motives

Risk taking is an important factor in organizational context, because it is closely related to decision making and thus with all processes within organization. Although the relationship between risk taking and personality traits is documented in the literature, the question is whether that can be applied in working environment where the motives play important role as well. The aim of this research is to determine the relative contribution of personality traits and motives in predicting willingness to take the risk in working environment. 101 employee in public sector participated in the research (55% men). Participants filled Hogan battery that contains 3 questioners. For measuring personality traits Hogan Personality Inventory was used (HPI). HPI consists of 182 dichotomous items ( $\alpha = .76$ ) and measures 7 personality traits (Ambition, Adjustment, Prudence, Learning approach, Interpersonal sensitivity, Sociability and Inquisitive). Willingness to take the risk in working environment was assessed using a subscale of Hogan Development survey, Mischievous, that consists of 14 dichotomous items ( $\alpha = .59$ ). Motives were measured using Motives Values Preferences Inventory that contains 200 3-point Likert scale items and measures 10 motives (Recognition, Power, Hedonism, Altruism, Aesthetic, Science, Tradition, Commerce, Security and Affiliation). The results of regression analysis show that personality traits and motives explain 56% ( $F(17,83) = 6.091, p < .01$ ) of variance of willingness to take the risk. Significant predictors among personality traits were Prudence ( $\beta = -.29, p < .01$ ) and Inquisitive ( $\beta = .33, p < .01$ ), whereas among motives significant predictors were Hedonism ( $\beta = .29, p < .01$ ) and Power ( $\beta = .24, p < .05$ ). Results indicate that persons who score low on Prudence, high on Inquisitive and whose motives in working environment are Hedonism and Power, tend to be more willing to take the risk.

*Keywords:* willingness to take risk, Hogan battery, personality traits, motives in working environment



EKSPERIMENTALNA PSIHOPATOLOGIJA

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## Depresivna kognitivna pristrasnost kod osoba sa bipolarnim poremećajem

U poslednjim decenijama javlja se interesovanje za ulogu psihosocijalnih činilaca u razvoju bipolarnog poremećaja. Istraživanja inspirisana Bekovom teorijom depresije i rehabilitovanom psihoanalitičkom hipotezom o maničnoj odbrani proveravala su tezu o depresivnoj šemi kod bipolarnih pacijenata potvrđujući kod njih mahom depresivni kognitivni stil u depresivnoj epizodi. U remisiji rezultati su nekonzistentni, pogotovo kad su u pitanju samoopisne mere depresivnog kognitivnog stila. Jedan od razloga za to može biti što depresivna kognitivna šema može biti nedostupna ispitivanju van epizode poremećaja zbog dejstva supresije, kako su to Wenzlaf i Bates pokazali kod unipolarno depresivnih poremećaja. Cilj ovog istraživanja je da se proverí postojanje depresivne kognitivne pristrasnosti, kao pokazatelja depresivne kognitivne šeme, kod osoba sa bipolarnim poremećajem u depresivnoj epizodi i remisiji, uz pomoć paradigme kojom bi se otklonilo dejstvo supresije.

Uzorak je činilo 19 bipolarnih pacijenata u depresivnoj epizodi (BP), 15 bipolarnih pacijenata u remisiji (BPR), 23 pacijenta sa aktuelnom unipolarnom depresivnom epizodom (UD), i 34 osobe iz opšte populacije (OP). Ispitanici su imali zadatak da naprave rečenice od ispreturanih reči pri čemu je rešenje moglo da bude depresivno ili neutralno intonirano. Polovinu ispreturanih rečenica ispitanici su rešavali sa kognitivnim opterećenjem (pamćenje šestocifrenog broja tokom traganja za pravilnim redosledom reči), kako bi se eliminisalo dejstvo supresije. Pacijenti iz UD i BP grupe ujednačeni su po nivou depresivnih simptoma na Bekovom inventaru depresivnosti, MUD = 33.43; MBP = 28.31;  $p = .32$ , a takođe i grupe BPR i OP, MBPR = 7.2; MOP = 5.56;  $p = .94$ .

ANCOVA sa kombinovanim dizajnom primenjena je nad brojem depresivno konstruisanih rečenica (zavisna varijabla) sa i bez kognitivnog opterećenja (faktor unutar subjekata) kako bi se pokazalo da li postoje značajne razlike u prosečnoj produkciji rečenica u četiri grupe (faktor između subjekata), dok je starost

ispitanika služila kao kovarijat. Dobijen je značajan efekat između grupa,  $F(3,86) = 19.05$ ;  $p < .001$ ,  $\eta = .40$ . Nezavisno od toga da li su rečenice konstruisali uz ili bez opterećenja, pacijenti iz UD grupe konstruisali su značajno veći broj depresivnih rečenica od svih ostalih grupa,  $qTK = 3.54$ ,  $p < .05$  u odnosu na BP,  $qTK = 7.11$  i  $qTK = 7.74$ ,  $p < .01$  u odnosu na BPR i OP. BP grupa ih je konstruisala više od BPR,  $qTK = 3.50$ ,  $p = .06$  i OP grupe,  $qTK = 5.14$ ,  $p < .01$ , dok se dve poslednje grupe ne razlikuju značajno,  $qTK = .85$ ,  $p > .10$ .

Rezultati ne podržavaju tezu da pacijenti sa bipolarnim poremećajem imaju depresivnu kognitivnu šemu koja je aktivna tokom depresivne epizode, a latentna tokom remisije i manične faze. Depresivna pristrasnost tokom depresivne epizode, nije tako izražena kod BP kao kod UD, može biti simptom poremećaja, a ne odraz depresivne kognitivne šeme koja je prisutna, ali suzbijena i tokom remisije.

Rad je nastao u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije (ON179006). Standardizaciju korišćenih instrumenata na srpskom jeziku finansijski je pomogao Pokrajinski sekretarijat za nauku i tehnološki razvoj AP Vojvodine RS (projekat broj 114-451-1647/2011-01).

*Ključne reči:* kognitivna šema, depresivna kognitivna pristrasnost, supresija, bipolarni poremećaj

## Depressive cognitive bias in bipolar disorder

There is growing interest in the role of psychosocial factors in development of bipolar disorder in the last decades. Inspired by Becks theory of the depression and rehabilitated psychoanalytical hypothesis about manic defense, some research has tested if bipolar patients have depressive cognitive schema. They mainly supported depressive cognitive style in depressive episodes, but in remission results are inconsistent, especially when self-report cognitive style measures were used. One of the reasons for inconsistency can be nonavailability of depressive cognitive schema content out of an episode of the disorder because of the effect of suppression. Wenzlaf and Bates have already shown the effect of suppression in unipolar depression. The aim of this study is to test if there is depressive cognitive bias, as an indicator of depressive cognitive schema, in bipolar disorder patients in depressive episodes and in remission, by means of suppression avoidance paradigm.

The sample consisted of 19 bipolar patients in depressive episode (BP), 15 bipolar patients in remission (BPR), 23 patients with current unipolar depressive episode

(UD) and 34 healthy controls (HC). Participants had a task to construct sentences out of unordered words, while the solution could have been depressively or neutrally valued. Half of the scrambled sentences were solved under cognitive load (remembering a six-digit number while searching for the right order of the words) in order to eliminate suppression. BP and UD patients were equalized on the basis of depressive symptoms on Beck's Depression Inventory, MUD = 33.43; MBP = 28.31;  $p = .32$ , as well as BPR and HC, MBPR = 7.2; MOP = 5.56;  $p = .94$ .

On the number of depressively constructed sentences as a dependent variable, with and without cognitive load as a within-subject factor, and age as a covariate, the split-plot ANCOVA was applied, to reveal if there are significant differences in mean sentence production in four groups (between-subjects factor). Only between-group effect was significant,  $F(3,86) = 19.05$ ;  $p < .001$ ,  $\eta = .40$ . Whether the sentences were constructed with or without load, the patients from UD group formed a significantly greater number of depressive sentences than any other group  $qTK = 3.54$ ,  $p < .05$  against BP,  $qTK = 7.11$ , and  $qTK = 7.74$ , against BPR, and OP respectively,  $p < .01$  for both. BP group constructed them more than BPR,  $qTK = 3.50$ ,  $p = .06$  i OP group,  $qTK = 5.14$ ,  $p < .01$ , while the two last groups did not differ significantly,  $qTK = .85$ ,  $p > .10$ .

The results don't support the hypothesis that bipolar patients have depressive cognitive schema which is active during depressive episodes but latent in remission and mania. Depressive bias in depressive episodes is not so indicative for bipolar as for unipolar patients, and can be a symptom of the disorder more than a reflection of depressive cognitive schema, present but suppressed in remission.

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**Keywords:** cognitive schema, depressive cognitive bias, suppression, bipolar disorder

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## Depresogena organizacija self-šeme kod paranoidnog poremećaja

Negativne reprezentacije selfa imaju važno mesto u teorijama nastanka kako depresije tako i paranoje. Istraživanja self-šema kod paranoidnih osoba su prilično retka, dok su se istraživači u oblasti depresije uglavnom bavili proučavanjem njihovih sadržinskih karakteristika. Postoji relativno malo istraživanja koja se bave strukturalnim karakteristikama self-šema iako se rizik za razvoj patologije možda upravo nalazi u strukturalnim karakteristikama. Cilj ovog istraživanja je ispitivanje organizacije kako pozitivnih tako i negativnih self-šema, u okviru interpersonalnog domena i domena postignuća, kod osoba sa dijagnozom perzistentnog poremećaja sa sumanotušću (PPS) bez depresivnih simptoma, osoba sa PPS dijagnozom sa simptomima depresije (PPS+D) i osoba koje su mentalno zdrave (MZ). Očekivalo se da će PPS+D osobe, u poređenju sa MZ osobama, imati depresogenu kognitivnu organizaciju (tj. manje distance između negativnih interpersonalnih self-atributa i veće distance između pozitivnih, interpersonalnih self-atributa). Konačno, u skladu sa skorašnjim nalazima koji sugerišu postojanje sličnosti u šematskim verovanjima PPS osoba i mentalno zdravih, očekivalo se odsustvo depresogene kognitivne organizacije kod PPS osoba.

26 pacijenata (65% ženskih; Mgodine = 43.83, SD = 13.05) sa PPS dijagnozom je bilo podeljeno u dve grupe na osnovu rezultata na Bekovom inventaru depresije-II: sa simptomima depresije i bez depresivnih simptoma. 34 studentkinje (Mgodine = 20.06, SD = .92) su činile grupu mentalno zdravih (MZ). Ispitanici su procenili ponuđene attribute prema dve dimenzije (u kojoj ih meri opisuju i prema valenci) korišćenjem kompjuterski podržanog testa. Svaki atribut je imao svoju poziciju na x i y koordinatnoj osi, što je poslužilo računanju prosečne distance u grupi prideva. Veća distanca je indikovala slabije integrisanu self-šemu.

3 (PPS, PPS+D, i MZ) X 2 (interpersonalni, postignuća) X 2 (pozitivni, negativni) kombinovana ANCOVA, sa godinama starosti kao kovarijatom, je indikovala trostruktu interakciju  $F(2,56) = 3.80, p = .028$ , parcijalna  $\eta^2 = .12$ . U slučaju interpersonalnog domena, post-hoc testovi su sugerisali da su PPS i PPS+D grupe imale manje integrisani pozitivni domen u poređenju sa MZ. Nadalje, PPS i MZ grupe

su imale slične negativne interpersonalne distance, koje su bile veće u poređenju sa PPS+D grupom.

Osobe sa PPS dijagnozom koje istovremeno ispoljavaju simptome depresije imaju depresogenu organizaciju self-šeme. Dati nalaz podržava nekoliko teorija nastanka paranoje, a koje akcentuju značajnegativnih uverenja o sebi. Međutim, ovakva organizacija nije ustanovljena kod osoba sa PPS bez depresivnih simptoma, a koje su ispoljile samo slabiju integrisanost pozitivnih interpersonalnih atributa u poređenju sa MZ. Rezultati istraživanja ukazuju na heterogenost paranoidnog spektra i potencijalnu ulogu slabije integrisanih interpersonalnih self-šema u fluktuacijama samopoštovanja koje su ustanovljene kod osoba sa PPS dijagnozom.

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*Ključne reči:* self-šema, kognitivna organizacija, paranoja, depresija

### Depressogenic self-schema organization in paranoia

Negative self-schemas have been implicated in both paranoia and depression. However, research on self-schemas in paranoid individuals is meager, whereas in the area of depression researchers focused largely on their content characteristics. There is a lack of research on the structural characteristics of self-schemas, even though these characteristics might be stable risk factors. Hence, the present study explored organization of the positive and negative self-schemas, for both interpersonal and achievement self-domains, in currently non-depressed individuals with persistent delusional disorder (PDD), currently depressed individuals with persistent delusional disorder (PDD+D), and nonpsychiatric controls (NC). We expected to find depressogenic cognitive organization in PDD+D compared to NC. Namely, they were expected to have more densely organized negative self-referent material and less interconnected positive self-descriptors, particularly within the interpersonal self-domain. However, these expectations might not hold for PDD individuals given some recent findings suggesting a greater similarity in schematic beliefs between them and healthy controls.

26 patients (65% females;  $M_{age} = 43.83$ ,  $SD = 13.05$ ) with the diagnosis of PDD were recruited for the study, and were split into two groups based on their scores on the

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Beck Depression Inventory-II: those with and without depression symptoms. 34 female students ( $M_{age} = 20.06$ ,  $SD = .92$ ) comprised the NC group. Participants completed a computerized task by rating adjectives on self-descriptiveness and valence using a grid. Each adjective had its x and y coordinate points, which were used to calculate the average interstimulus distance. A greater distance indicated less organized a self-structure.

A 3 (PDD, PDD+D, and NC) X 2 (interpersonal, achievement) X 2 (positive, negative) split-plot ANCOVA was performed. Age served as a covariate. There was a significant three-way interaction,  $F(2,56) = 3.80$ ,  $p = .028$ , partial  $\eta^2 = .12$ . Regarding the interpersonal domain, follow-up tests revealed that that the PDD and PDD+D groups had less integrated positive interpersonal content compared to NC. Also, the PDD and NC groups had similar distances among negative interpersonal adjectives, which were greater compared to the PDD group.

Depressogenic self-schema organization (less interconnected positive interpersonal self-attributes and more densely organized negative ones) was found in depressed individuals with persistent delusional disorder, supporting those theories which emphasize the importance of negative self-beliefs in emergence and maintenance of paranoia. However, this organization was not found in non-depressed PPD individuals, who only had less integrated positive interpersonal content compared to NC. Our results point to a heterogeneity of paranoid spectrum and a potential role of unconsolidated interpersonal self-schema in self-esteem fluctuations in PPD.

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**Keywords:** self-schema, cognitive organization, paranoia, depression

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## Efekti indukcije afekta i anksioznosti na pristrasnosti u pažnji prema pretećim stimulusima

U prethodnim istraživanjima su se kao preteći stimulusi za visoko anksiozne osobe nedosledno koristile facijalne ekspresije besa i straha. Tek u nekolicini novijih istraživanja se kombinovanjem ovih stimulusa dobija da je preteći stimulus, odn. stimulus na koji visoko anksiozni pokazuju pristrasnosti u pažnji, ipak besno lice. Međutim, u prethodnim istraživanjima se dobijalo da se stanje anksioznosti povezuje s pristrasnostima ka pretećim stimulusima, ali za osobinu anksioznost nisu dobijeni jednoznačni rezultati. U ovom radu se uvodi indukcija određenog afekta – besa i straha. Na ovaj način se može steći bolji uvid u efekat osobine anksioznosti na pristrasnosti u pažnji prema emocionalno zasićenim stimulusima, tj. može se ispitati da li osobina anksioznost ostvaruje interakciju s indukcijom afekta na pomenute pristrasnosti.

U „dot probe“ eksperimentu je učestvovalo 73 studenata (13 muških) sa Odseka za psihologiju UNS. U ovoj proceduri se u paru prikazuju slika neutralne i emocionalno zasićene facijalne ekspresije, pa potom oznaka (npr. tačka ili zvezdica) na strani jedne od slika. Zadatak ispitanika je da odgovori na kojoj strani je prikazana oznaka. Pristrasnosti u pažnji merene su uvidom u vreme reakcije za različite kombinacije stimulusa i oznake. Primenjena je kombinovana analiza u kojoj su ponovljeni faktori bili valenca (bes, strah i radost) i dužina izlaganja stimulusa (150ms i 500ms), neponovljeni faktor je bila grupa indukcije afekta (afekat besa, straha ili neutralni afekat), dok je kovarijabla bila anksioznost, merena Upitnikom anksioznosti kao crte (AT29).

U slučaju indeksa zadržavanja pažnje, dobijena je marginalno značajna interakcija valence i dužine izlaganja ( $\eta^2 = .04$ ,  $p = .06$ ) koja upućuje na to da se na besna lica više zadržava pažnja u situaciji kraćeg izlaganja stimulusa, što se može objasniti pristrasnostima prema biološki relevantnim signalima opasnosti. Takođe je dobijen i značajan efekat anksioznosti ( $\eta^2 = .06$ ,  $p = .05$ ) koji upućuje na to da osobe s višim skorovima na anksioznosti imaju generalno duža vremena reakcije tj. više izraženo zadržavanje pažnje na svim emocionalnim stimulusima. U slučaju indeksa

orijentacije tj. usmeravanja pažnje nisu dobijeni značajni efekti, ali u slučaju indeksa odvrćanja tj. preusmeravanja pažnje dobijena je značajna interakcija valence stimulusa, indukcije afekta i anksioznosti ( $\eta^2 = .08$ ,  $p = .03$ ). Ova interakcija upućuje na to da je samo u grupi u kojoj je indukovano bes dobijen značajan pozitivan efekat anksioznosti na indeks odvrćanja pažnje za besna lica ( $B = .65$ ,  $p = .05$ ) tj. da osobe s višim skorovima na anksioznosti sporije preusmeravaju pažnju sa besnih na neutralna lica.

Rezultati ukazuju na to da se anksioznost povezuje s pristrasnostima prema svim emocionalnim stimulusima, ali da se usled indukcije besa povezuje s teškoćama pomeranja pažnje sa stimulusa koji su kongruentni afektu tj. sa besnih lica.

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*Ključne reči:* pristrasnosti u pažnji, anksioznost, bes, strah, indukcija afekta

### Effects of affect induction and anxiety on attention biases towards threatening stimuli

In previous studies, facial expressions of anger and fear were inconsistently used as threatening stimuli for high anxiety persons. In a small number of recent studies, in which a combination of those stimuli was used, results suggested that anger is the relevant threatening stimulus or stimulus toward which persons with high anxiety showed attentional biases. However, in the past studies, only state anxiety was related reliably to attentional biases towards threatening stimuli, whereas the effects of trait anxiety were inconsistent. In this study, anger and fear affect inductions were used. By this way, we could gain a better insight into the effect of trait anxiety on attentional biases towards emotional stimuli i.e. we could test a possible interaction effect between anxiety and affect induction on the mentioned biases.

Students from the Department of Psychology at UNS ( $N = 73$ , 13 male) participated in a dot probe experiment. In this procedure, two paired stimuli were presented – neutral and emotional facial expression – followed by the mark (dot or star) in the location of one of the two stimuli. Participants responded on which side the mark appeared. Attentional biases were measured by reaction times in different combinations of stimuli and the mark. A split-plot ANCOVA was used in which within-subject effects were valence (anger, fear, and joy) and time of presenting

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stimuli (150ms and 500ms), between-subject effect was affect induction, whereas the covariable was trait anxiety measured by the Anxiety Trait – 29 (AT29).

Regarding the bias index, which shows sustained attention, a marginally significant interaction between valence and time of stimuli presentation was obtained ( $\eta^2 = .04$ ,  $p = .06$ ). This interaction indicated that anger faces grabbed the attention but only during the shorter presentation of stimuli, which could be explained by the attentional biases toward biologically relevant threat signals. Also, there was a significant effect of anxiety ( $\eta^2 = .06$ ,  $p = .05$ ), which suggested that participants with higher scores on anxiety had longer reaction times in general i.e. they sustained attention longer towards all emotional stimuli. There was not significant effect in the case of orienting index, but there was a significant interaction between valence of stimuli, affect induction, and anxiety in the case of disengaging index ( $\eta^2 = .08$ ,  $p = .03$ ). This interaction showed that there was the effect of anxiety on disengaging index for anger faces only in the anger affect induction group ( $B = .65$ ,  $p = .05$ ). Participants with higher scores on anxiety were slower in disengaging attention from angry to neutral faces.

Results suggested that trait anxiety is related to attentional biases toward all emotional stimuli, but in the anger state induction anxiety is related to difficulty in disengaging attention from stimuli which are congruent with the current affect.

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**Keywords:** attentional biases, anxiety, anger, fear, affect induction

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## Efikasnost zamišljanja događaja i uslovne formulacije ajtema u indukciji afekta

Popularan instrument za merenje kognitivne reaktivnosti, mere u kojoj negativni afektivitet može da reaktivira negativne kognicije, je Lajden Indeks Senzitivnosti na Depresivnost – Revidirana verzija (LEIDS-R). Metod indukcije afekta koji je sastavni deo ovog instrumenta, i koji je korišćen u mnogim istraživanjima, je zamišljanje neprijatnog događaja. Ovaj instrument takođe sadrži uslovno formulisane ajteme – “Kada sam tužan, onda ja...” umesto standardne formulacije ajtema. Cilj ovog istraživanja je provera potencijalnog efekta ove uslovne formulacije ajtema na porast negativnog afekta u poređenju sa metodom indukcije afekta koji podrazumeva zamišljanje neprijatnog događaja.

104 studenta Univerziteta u Novom Sadu popunilo je skalu Negativnog Afekta (NA) srpske adaptacije upitnika PANAS, supskalu Tuge PANAS-X upitnika, supskalu simptoma depresivnosti upitnika DASS 21 i dalo podatke o životnoj istoriji velike depresivne epizode preko interneta. U eksperimentalnoj fazi, ispitanici su podeljeni u 4 grupe u zavisnosti od prisustva, odnosno odsustva metode indukcije afekta i prisustva, odnosno odsustva uslovno formulisanih ajtema upitnika LEIDS-R. Po popunjavanju upitnika LEIDS-R, ispitanici su ponovo popunili iste afektivne mere koje su zadate u pre-eksperimentalnoj fazi.

Analizom kovarijanse nije dobijen značajan glavni efekat grupne pripadnosti na vrednosti NA na post-testu, kada se kontroliše nivo NA sa pretesta,  $F = 1.82$  ( $p > .05$ ). Zbog toga se sa oprezom može tumačiti značajno viši NA u grupi koja sadrži i metod indukcije afekta i uslovno formulisane ajteme u odnosu na grupu koja ne sadrži ni jedan ni drugi element,  $p = .035$ .

Rezultati, striktno govoreći, ukazuju na neefikasnost kako procedure indukcije afekta. tako i uslovne formulacije ajtema u indukciji negativnog afekta, što se eventualno može objasniti malom veličinom uzorka. Ipak, rezultati ovog istraživanja potencijalno sugerišu da kombinovana upotreba zamišljanja neprijatnog događaja i uslovno formulisanih ajtema može da doprinese povišenju negativnog afekta koje je ključno u istraživanjima koje se bave ponovnom

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aktivacijom negativnih misli pomoću tužnog raspoloženja. Ograničenja, smernice za buduća istražavanja i kliničke implikacije će biti prodiskutovane.

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*Ključne reči:* zamišljanje događaja, uslovno formulisani ajtemi, kognitivna reaktivnost, negativni afekat

### Efficacy of scenario imaging and conditional wording on mood induction

A popular instrument for measuring cognitive reactivity, a degree to which sad mood can reactivate negative thoughts, is the Leiden Index of Depression Sensitivity – Revised (LEIDS-R). The mood induction method incorporated into the instrument is a scenario imagining task, endorsed by many studies. However, this measure also incorporates conditional wording - “When I’m sad then I...” instead of the usual item formulation. The aim of this study is to examine the potential effects of conditional wording on the increase in negative affect, when compared to the mood induction method.

104 students of the University of Novi Sad completed the Negative Affect (NA) scale of the Serbian adaptation of the PANAS, the Sadness subscale of PANAS-X, a depression symptoms measure (DASS-21), as well as a history of depression questionnaire via the Internet. In the experimental phase, participants were divided into four groups depending on the presence or absence of the mood induction procedure, and the presence or absence of conditional item wording of the LEIDS-R scale. After completion of the LEIDS-R scale, the participants filled out the same affective measures which were administered in the pre - experimental phase once again.

ANCOVA showed non-significant main effect of the group on the differences in posttest NA when pretest NA was controlled,  $F = 1.82, p > .05$ . Therefore, only with caution one can interpret significantly higher NA in the group with both mood induction and conditional item wording than in the group without both these elements.



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Results, strictly speaking, showed the inefficacy of both mood induction procedure and conditional wording to induce negative affect, which could be a result of the sample size. However, the results of this study potentially suggest that the scenario imagining task combined with the conditional item formulation contribute to the increase in negative affect which can be of paramount importance in the research on reactivation of negative thoughts via sad mood. Limitations, future directions, and clinical implications will be discussed.

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**Keywords:** scenario imagining, conditional wording, cognitive reactivity, negative affect

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### Uticaj ruminacija na egzekutivne funkcije

Dosadašnje studije pokazuju povezanost između depresivnih ruminacija (kao stanja i kao crte) i otežanog egzekutivnog funkcionisanja (EF), međutim, nalazi su veoma raznovrsni, a često i kontradiktorni. Dok jedna grupa autora upućuje na povezanost ruminacija i nemogućnosti premeštanja pažnje sa jednog mentalnog seta informacija na drugi (funkcija premeštanja), druga grupa naglašava nemogućnost inhibiranja prethodno relevantnog seta informacija (funkcija inhibicije). Ovakva neusaglašenost bi u izvesnoj meri mogla biti posledica upotrebe različitih instrumenata kojima se procenjuju ovi konstrukti, te je svrha ovog istraživanja ispitivanje uticaja različitih formi ruminacija na egzekutivno funkcionisanje. Sprovedena su dva eksperimenta na nekliničkim uzorcima, a primenjeni su Upitnik ruminativnog stila reagovanja kojim se procenjuju ruminativne tendencije u kontekstu depresivnog raspoloženja, i Upitnik ruminativnog stila mišljenja kojim se procenjuje dispozicija ka repetitivnom mišljenju, nezavisno od valence afekta, vremenske direkcije i sadržaja misli, kao i različiti računarski podržani zadaci za

procenu EF premeštanja i inhibicije. Različite instrukcije za indukciju aktuelnog ruminativnog procesa odnosile su se na variranje vremena neophodnog za uključivanje u analitičko samoposmatranje. Na osnovu izraženosti ruminativnih tendencija ispitanici su selektovani u grupu ruminatora, odnosno neruminatora, a međugrupne razlike na zadacima EF testirane su primenom MANOVA analize. Efekti ruminativnih tendencija, kao i trenutnih ruminacija, na funkcije premeštanja ili inhibicije nisu dostigli statističku značajnost, uprkos značajnom povišenju negativnog afekta nakon zadatka indukcije ruminacija ( $F(1,27) = 2.203, p = .459$  i  $F(1,39) = 1.476, p = .191$ ). Uprkos tome što razlike nisu dostigle statističku značajnost, uočeni su trendovi koji sugerišu da bi se nedoslednosti u povezanosti ruminacija i EF mogle objasniti upotrebom različitih mera. Jedno objašnjenje tiče se operacionalizacije ruminacija kao stila mišljenja nezavisno od vremenske direkcije, što onemogućava razlikovanje depresivnih od anksioznih ruminacija koje mogu biti u vezi sa različitim egzekutivnim funkcijama. Dodatno, čini se i da bi različiti nivoi kognitivne angažovanosti koje zahtevaju različiti zadaci EF mogli da utiču na upuštanje u već ustaljene obrasce repetitivnog mišljenja kod osoba sa izraženim ruminativnim tendencijama. Implikacije će biti prodiskutovane.

Rad je nastao u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije (ON179006). Standardizaciju korišćenih instrumenata na srpskom jeziku finansijski je pomogao Pokrajinski sekretarijat za nauku i tehnološki razvoj AP Vojvodine RS (projekat broj 114–451–1647/2011–01).

*Ključne reči:* egzekutivne funkcije, funkcija premeštanja, funkcija inhibicije, depresivne ruminacije, ruminacija kao stil mišljenja

## The effects of rumination on executive functions

The relationship between depressive rumination (trait and state) and impaired executive functioning (EF) has been well established, however, findings are inconsistent about whether ruminative thinking is associated with an inability to switch attention away from old to new information or with an inability to effectively inhibit the processing of previously relevant information. This inconsistency might result from the use of different construct measures. Hence, in this study, we explored the relationship between different forms of rumination and executive functions. Two experiments (E1 and E2) were conducted in non-clinical samples. We used the Ruminative Response Scale to assess depressive rumination, the Ruminative Thinking Style, which operationalizes rumination as a tendency toward repetitive thinking independent of the valence of affect, time

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direction, and thought content, as well as different computer-based tasks to assess the switching and inhibition functions. Also, the instruction for the rumination induction task varied, i.e., the time needed to engage in analytical self-reflection. Based on the ruminative scores, participants were divided into two groups: ruminators and non-ruminators. The group differences in EF performance were tested using MANOVA. The effects of rumination, both state and trait, on switching and inhibitory processes did not yield statistical significance, despite the significant increase in negative affect following the rumination induction task,  $F(1,27) = 2.203$ ,  $p = .459$  and  $F(1,39) = 1.476$ ,  $p = .191$ . Despite the fact that our results did not yield significance, different trends of the effect of rumination on executive functions were observed. It seems that this inconsistency could be attributed to the different measures used. One possible explanation refers to operationalization of rumination as independent of time direction - making it difficult to distinguish anxious from depressive rumination which may be related to different executive functions. Also, it seems that different levels of cognitive engagement required by different EF tasks affect engaging in the usual pattern of repetitive thinking among people with greater ruminative tendencies. Further implications will be discussed.

This study was supported by Ministry of Education, Science and Technological Development, Republic of Serbia (ON179006). Standardization of used instruments on Serbian language was founded by the Provincial Secretariat for Science and Technological Development AP Vojvodina RS (project 114-451-1647/2011-01).

**Keywords:** executive function, switching, inhibition, depressive rumination, ruminative thinking style

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## Uticaj tipa instrukcije na efekat naknadnog pojačanja u zadatku supresije neprijatnog autobiografskog sadržaja

U klasičnom zadatku supresije misli Vegnera i saradnika ispitanici su dobili instrukciju da „ne misle o belom medvedu“ nekoliko minuta (faza supresije). Zatim je od njih traženo da „misle o belom medvedu“ (faza ekspresije sa tradicionalnom instrukcijom), te da svaki put kada im se misao javi to signaliziraju. Autori su primetili da se ispitanicima češće javlja misao o belom medvedu ako su je prethodno supresovali. Taj fenomen nazvali su efektom naknadnog pojačanja (ENP), zaključivši da namerno izbegavanje određene misli čini kasnije tu misao intruzivnijom. Usled potrebe za razumevanjem mehanizama različitih mentalnih poremećaja, kasnija istraživanja su se fokusirala na supresiju emocionalno obojenog sadržaja. Neki autori su replicirali ENP sa autobiografskim materijalom, koristeći liberalniju instrukciju u fazi ekspresije („možete misliti na dati događaj, ali ne morate“). Međutim, u sličnoj studiji koju je sproveo naš tim ENP sa liberalnom instrukcijom je izostao, što ukazuje na moguću zavisnost datog efekta od vrste instrukcije. U cilju testiranja date hipoteze sprovedeno je ovo istraživanje.

72 ispitanika ( $\bar{z} = 79.2\%$ ), prosečne starosti 19.6 godina ( $SD = .98$ ) su randomizirano raspoređeni u jednu od 4 grupe zasnovane na vrsti instrukcije (tradicionalna/liberalna ekspresija) i redosledu faza (inicijalna supresija/inicijalna ekspresija). Svi ispitanici su dobili zadatak da tokom 2 min. misle na događaj koji je kod njih provocirao najintenzivnije osećanje stida u proteklih godinu dana. Drugi deo eksperimenta podrazumevao je fazu supresije i ekspresije. Tokom faze supresije svi ispitanici su dobili identično uputstvo („ne mislite na neprijatan događaj“), ali u fazi ekspresije instrukcija je varirala između tradicionalne i liberalne. Polovina ispitanika dobila je tretman „inicijalne supresije“ (prvo je sledila faza supresije pa ekspresije), a druga polovina „inicijalne ekspresije“ (prvo ekspresija pa supresija). U svim fazama za registrowanje frekvence misli korišćen je SuperLab.

2x2x2 kombinovana ANOVA ispitivala je razlike u frekvenci misli o događaju između grupa. Međugrupni faktori su bili vrsta instrukcije (liberalna/tradicionalna) i redosled faze (inicijalna supresija/inicijalna ekspresija), dok je unutargrupni faktor

bila faza supresije i ekspresije. ENP repliciran je samo poduslovom tradicionalne instrukcije ( $F(1,68) = 13.12$ ;  $p < .001$ ; Cohen's  $d = .79$ ;  $p < .05$ ).

U ovom eksperimentu paradigmu supresije misli testirali smo u eksterno validnijim uslovima, koristeći emocionalno relevantan materijal umesto afektivno neutralne mete i kontrastirajući dve vrste instrukcije, od kojih liberalna više odgovara realnim životnim uslovima. Rezultati istraživanja opet su potvrdili da ljudi nemaju apsolutnu kontrolu nad svojim mislima, ali su takođe pokazali i da postoji još prostora za rasvetljavanje procesa koji se odvijaju tokom supresije misli. Praktične implikacije rezultata diskutovane su u svetlu Horovicevih razmatranja vezanih za razumevanje reakcije na stres.

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*Ključne reči:* supresija misli, beli medved, efekat naknadnog pojačanja, liberalna instrukcija

## Effects of type of instruction on the rebound effect in supression of unpleasant autobiographical content

Introduction. In Wegner's classical thought-suppression experiment, subjects are asked not to think of a white bear for a few minutes. Than, they are instructed to "try to think of a white bear" and signalize every time the thought comes to their minds ("forced expression instruction"). After suppression, it was noticed that participants reported higher frequency of target thoughts – the phenomenon which was termed rebound effect (RE). Some authors replicated RE with autobiographical material, using a more liberal expression instruction ("you might think of the target thought, but you don't have to"). However, in a similar study conducted by our team, RE was not obtained, suggesting that RE may be instruction-dependent. Therefore, the aim of this study was to test this hypothesis.

Method. 72 undergraduates (females = 79.2%, Mage = 19.6) were randomized into four groups based on the type of instruction (liberal/traditional) and order of condition (initial suppression/initial expression). All participants were instructed to think for 2 min. about the most embarrassing event which they experienced during the last year. In next part of the experiment participants had to suppress and express the event. All groups had „not to think about unpleasant event" in

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suppression condition, but during expression condition instruction varied between tradicional and liberal. Half of the participants had the order of conditions with initial suppression, and the other half with initial expression. SuperLab was used for registration of frequency of thoughts. Results. 2x2x2split-plot ANOVA was used to explore differences among groups in the frequencies of thoughts about the event. Between groups factors were the instruction type (liberal/tradicional) and conditions order (initial suppression/initial expression), while the condition type served as within factor. RE was obtained only under the traditional instruction condition ( $F(1,68) = 13.12; p < .001; \text{Cohen's } d = .79; p < .05$ )

Conclusion. In this experiment the “white bear“ paradigm was examined in an externally more valid setting, using self-relevant materials and contrasting two types of instructions for thought expression. Our findings demonstrated that RE may be instruction-dependent, indicating that we still have to learn what really happens during suppression experiments. Implications regarding the nature of intrusions common for a number of mental disorders will be discussed in the light of Horowitz's notions about stress adaptation.

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Keywords: thought suppression, white bear paradigm, rebound effect, liberal instruction



INDUSTRIJSKO-ORGANIZACIJSKA PSIHOLOGIJA

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## The performance and affective quality of the computer interface as a virtual workspace

In the multidisciplinary field of human computer studies there is a growing interest in the role of affects in computer system's usability. The interest is derived from contemporary researches confirming the effects of emotional experience of satisfaction, boredom, confusion, and similar qualities on performance of cognitively demanding business tasks. Nevertheless, there is a lack of systematic analysis in this domain.

Accordingly, the goal of our study was to propose and to verify the concept of measuring emotional reactions after the system's usage. Based on theoretical and methodological framework of PAD model of emotions, the scale for measuring reactions is offered. Objective measures of systems usability, speed (time needed for the tasks' accomplishment) and accuracy of twelve tasks performed, were collected on 303 respondents. There were 133 male and 170 female students of the first year of management, with similar level of relevant knowledge.

Users had to evaluate emotional quality of the experience with the system based on the dimensions of pleasure, arousal and dominance (control) by using a 34 items Likert type scale. Based on these dimensions (excluding the dominance as the subjective measure of accomplishment), four categories of virtual working space were provided with the aim to compare objective measures of performance attained between each and every category.

Results showed that internal consistency of constructed scales was: Pleasure  $\alpha(11) = .85$ , Arousal  $\alpha(12) = .70$ , and Dominance  $\alpha(11) = .80$ . The correlation between accomplishing time and accuracy were mild but significant ( $r = -.22$ ;  $p < .01$ ;  $N = 303$ ), as well as the correlations between these measures of performance and the perception of dominance and the experience of pleasure. Experiencing dominance is in the positive correlation with accuracy ( $r = .28$ ;  $p < .01$ ;  $N = 303$ ) and in negative with time required for finishing task ( $r = -.29$ ;



$p < .01$ ;  $N = 303$ ) which is also the case with the pleasure ( $r = .27$ ;  $p < .01$ ;  $N = 303$  and  $r = -.23$   $p < .01$ ;  $N = 303$ ). It seems that arousability is not related with performance in this context, which is in concordance with previous researches with similar design, advocating that the circumstances were rather neutral and did not provoke reactions of arousal.

The research goal considers differences between eight virtual space categories in time and accuracy, with the hypotheses that it might be found between monotonous and challenging virtual space qualities. Nevertheless, the only statistically significant difference was found between monotonous and relaxing experience with prolonged work in the monotonous environment ( $F(4,302) = 3.98$ ;  $p < .004$ ) and no discrepancy in accuracy was found. Eventually, there are some restrictions to our research that are considered to be responsible for the outcome, also seen as a potential for the further improvements of measuring affective aspects of user experience with business intelligence systems.

**Keywords:** emotional reactions, PAD model, performance, computer interface, virtual workplace

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**Demografske odlike i aspekti psiho-fizičkog zdravlja kod nezaposlenih u Srbiji**

Cilj ovog rada bio je da se opiše psiho-fizičko zdravlje nezaposlenih osoba u Srbiji, da se utvrdi efekat trajanja nezaposlenosti na opšte zdravlje i njegove pojedine aspekte, kao i da se utvrdi značaj nekih demografskih odlika za efekat produžene nezaposlenosti na zdravlje. Istraživanje je sprovedeno na reprezentativnom uzorku od 222 nezaposlene osobe u Srbiji. Rezultati pokazuju da broj simptoma poremećaja ukupnog psiho-fizičkog zdravlja ima tendenciju opadanja nakon druge godine staža nezaposlenosti i potom tendenciju ponovnog rasta nakon četvrte godine čekanja na posao. Analiza razlika pokazala je da se muškarci i žene ne razlikuju po efektima gubitka posla na njihovo zdravlje, iako žene sistematski

pokazuju jaču tendenciju ka povećanju broja simptoma poremećaja zdravlja. Godine starosti i nivo obrazovanja dovode do specifičnih obrazaca efekata nezaposlenosti na zdravlje koji se manifestuju u oprečnim tendencijama ka značajnom povećanju ili smanjenju simptoma u kritičnom periodu od 19. do 28. meseca nezaposlenosti. Utvrđeno je da, u odnosu na grupu sredovečnih, stariji nezaposleni (46 – 55 godina života) u ovoj tački staža nezaposlenosti izveštavaju o značajno više simptoma poremećaja fizičkog zdravlja kao i simptoma straha i anksioznosti. Autori zaključuju da je uočeni dekrement simptoma poremećaja zdravlja nakon gubitka posla u skladu sa nekim nalazima ranijih istraživanja kao i to da nalazi ovog istraživanja doprinose rasvetljavanju značaja godina starosti i nivoa obrazovanja nezaposlenih osoba za njihovo psiho-fizičko blagostanje tokom trajanja nezaposlenosti.

*Ključne reči:* nezaposlenost, zdravlje, demografske odlike, pad simptoma

### Demographic characteristics and aspects of the psycho-physical health of unemployed people in Serbia

The aim of this study was to describe the psycho-physical health of unemployed people in Serbia, to determine the effects of unemployment on their health, as well as to determine the significance of some demographic characteristics for the relation between psycho-physical health and prolonged unemployment. The research was conducted on a representative sample of 222 unemployed individuals from four regions in Serbia. The results demonstrate that the total number of symptoms indicating ill psycho-physical health tend to decline after two years of unemployment and then tend to re-grow after four years of waiting for a job. Data analysis also shows that men and women do not differ in the effects of job loss on their health, even though women systematically reveal a stronger tendency towards an increase in symptoms of health disorders. The age and level of education lead to specific patterns of unemployment health effects that manifest themselves in opposing tendencies towards a significant increase or decrease in symptoms, during a job-waiting period of 19 to 28 months. Results also demonstrate that, compared to the group of middle-aged, the group of older unemployed people (those 46 - 55 years of age) in the same critical period reported significantly more symptoms of physical health disorders and more symptoms of fear and anxiety. The authors conclude that the observed decrement of ill health symptoms after job loss is in accordance with the findings of some earlier studies. Furthermore, it is believed that the findings of this research shed more light on the

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importance of the unemployed's age and level of education for psychological and physical well-being during periods of unemployment.

*Keywords:* unemployment, health, demographic characteristics, symptoms decrement

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### Osetljivost za unapređenje kompetencija neposrednih rukovodilaca u preduzećima u Srbiji

Kao teorijska osnova za ovo istraživanje uzet je menadžerski pristup razvoju kompetencija koji je usmeren na utvrđivanje zahteva koji vode superiornim performansama. Istraživanje je sprovedeno 2014. na prigodnom uzorku od 499 ispitanika iz državnih i privatnih preduzeća. Procenjavano je 39 kompetencija na petostepenoj skali Likertovog tipa čija pouzdanost iznosi  $\alpha = .974$ . Osnovni cilj ovog istraživanja je bio da utvrdimo kako se opažaju potrebe za unapređenjem kompetencija neposrednih rukovodilaca od strane rukovodilaca svih nivoa u oragnizacijama i od strane zaposlenih. Takođe, želeli smo da ispitamo kako se opažaju potrebe za unapređenjem kompetencija u državnim i privatnim preduzećima.

Taksonomska analiza je, kao i u predhodnim istraživanjima, pokazala da se ispitanici dele u dva klastera. Prvi klaster čine ispitanici koji smatraju da ne postoje potrebe za unapređenjem kompetencija neposrednih rukovodilaca, a drugi čine oni ispitanici koji smatraju da postoji potreba za unapređenjem svih kompetencija. Rezultati  $H^2$  kvadrat testaukazuju da je veći broj ispitanika koji smatraju da nema potrebe za unapređenjem kompetencija zaposleno u privatnim preduzećima.

Rukovodioci smatraju da najveća potreba postoji za unapređenjem kompetencija: obučenosť za ulogu rukovodioca ( $AS = 3.56$ ;  $SD = 1.18$ ), inovativnosť ( $AS = 3.50$ ;  $SD = 1.15$ ) i posedovanje ažurnog stručnog znanja ( $AS = 3.48$ ;  $SD = 1.16$ ). Zaposleni takođe smatraju da neposredni rukovodioci pre svega treba da unaprede obučenosť za ulogu rukovodioca ( $AS = 3.48$ ;  $SD = 1.19$ ), a zatim navode: veštine motivisanja saradnika ( $AS = 3.43$ ;  $SD = 1.29$ ), veštine rešavanja konflikata ( $AS = 3.41$ ,  $SD = 1.77$ ),

razvijanje dobrih međuljudskih odnosa (AS = 3.41; SD = 1.38) i inovativnost (AS = 3.41; SD = 1.32).

Zaposleni u državnim preduzećima smatraju da njihovi rukovodioci, pre svega, treba da unaprede inovativnost (AS = 3.66; SD = 1.21), obučenost za ulogu rukovodioca (AS = 3.63; SD = 1.13) i veštine rešavanja konflikata (AS = 3.56; SD = 1.81), dok zaposleni u privatnim preduzećima smatraju da njihovim rukovodiocima najviše nedostaje: posedovanje ažurnog stručnog znanja (AS = 3.35; SD = 1.28), obučenost za ulogu rukovodioca (AS = 3.44; SD = 1.23) i inovativnost (AS = 3.29; SD = 1.22).

Rezultati taksonomske analize ukazuju da su stavovi ispitanika prema potrebama za unapređenje kompetencija neposrednih rukovodilaca pretežno crno – beli, jedni smatraju da njihovi rukovodioci treba da unaprede sve kompetencije, dok drugi smatraju da ništa ne treba unapređivati. Ovakvi stavovi ukazuju da ne postoji ozbiljan pristup unapređenju kompetencija. Ne možemo očekivati ozbiljnije aktivnosti ni od ispitanika koji su rekli da ništa ne treba unapređivati, ali ni od onih koji su rekli da treba unaprediti sve kompetencije, jer ni jedni ni drugi nisu pošli od dijagnoze stanja, određivanja prioriteta i plana unapređenja, što ukazuje na nezreo, afektivan pristup ovoj problematici.

*Ključne reči:* kompetencije rukovodilaca, potrebe za unapređenjem kompetencija, javna preduzeća, privatna preduzeća

### Sensitivity for improvement of managerial competencies in Serbia

As a theoretical basis for this research take a managerial approach to the development of competencies which is aimed at determining the requirements that lead to superior performance. Research has been conducted investigated in 2014. on 449 participants who work in public and private companies. Participants assessed 39 managerial competence on Likert type scale, with Cronbach's Alpha is .974. The main goal of this research was to investigate how both, managers and employees perceive need for managerial competencies improvement. Besides that, we wanted to explore if there is a difference in assessment between workers in public and private sector.

The hierarchy cluster analysis has shown, as same as in previous researches, that participants can be divided in two groups. The first cluster consist of those participants who think that there is no need for improvement of competencies at

all. On the other hand, workers who think that there is a need for improvement of all managerial competencies belong to the second cluster.

Managers think that the biggest need for competencies improvement is for skilled to be manager (AS = 3.56; SD = 1.18), innovativeness (AS = 3.50; SD = 1.15) and for having a contemporary knowledge about managing (AS = 3.48; SD = 1.16). Employees also think that the biggest need for improvement is for skilled to be manager (AS = 3.48; SD = 1.19), than skill for motivate co workers (AS = 3.43; SD = 1.29), skill to solve conflicts (AS = 3.41, SD = 1.77), developing good interpersonal relationship among employees (AS = 3.41; SD = 1.38) and innovativeness (AS = 3.41; SD = 1.32).

Participants who work in public sector think that their managers should first improve innovativeness (AS = 3.66; SD = 1.21), skilled to be manager (AS = 3.63; SD = 1.13) and skills to solve conflict (AS = 3.56; SD = 1.81). Those who work in private companies think that managers do not have contemporary knowledge about managing (AS = 3.35; SD = 1.28), are not skilled to be manager (AS = 3.44; SD = 1.23) and are not innovative (AS = 3.29; SD = 1.22).

Results of cluster analysis indicate that participants see the problem of managerial competencies improvement pretty much like something black and white. Some of them think that their supervisors should improve all competencies, and others believe that there is no need for improving of competencies at all. Attitudes like this indicate that there is not systematic and serious approach for competencies improvement. We cannot expect some serious activities from those who have said that there is no need to improve anything and those who think the opposite, because neither have not started with a diagnose of situation, determining priorities and the plan for improvement, which indicate to one immature, affective approach to this problematic.

**Keywords:** managerial competencies, need for competencies improvement, public companies, private companies

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## Sindrom profesionalnog izgaranja kod nastavnika i pojave simptoma anksioznosti i depresivnosti

Sindrom profesionalnog izgaranja se definiše kao produženi odgovor na hroničnu izloženost emocionalnim i međuljudskim stresorima na poslu, a koji se manifestuje na planu emocionalne iscrpljenosti, depersonalizacije i pada ličnog postignuća (Maslach et al., 1996).

Cilj istraživanja je utvrđivanje stepena izraženosti sindroma profesionalnog izgaranja kod nastavnika, utvrđivanje povezanosti između burnout sindroma i pojave simptoma anksioznosti i depresivnosti, kao i utvrđivanje razlika u stepenu profesionalnog izgaranja s obzirom na pol, uzrast i dužine radnog staža. Istraživanje je sprovedeno na uzorku od 110 nastavnika srednjih škola u Bitolju. Za merenje burnout sindroma korišćen je Maslach Burnout Inventory (Maslach et al., 1996), za utvrđivanje prisutnosti simptoma anksioznosti The Four Systems Anxiety Questionnaire (Koksal & Power, 1990), dok je depresivnost merena sa Beck Depression Inventory II (Beck et al., 1996).

Rezultati pokazuju visok stepen izgaranja u dimenziji profesionalnog postignuća, dok na dimenzijama emocionalna iscrpljenost i depersonalizacija najveći procenat nastavnika ima umereni nivo izgaranja. Što se tiče međusobne povezanosti 3 dimenzija, rezultati pokazuju značajnu korelaciju između dimenzije emocionalna iscrpljenost i depersonalizacija ( $r = .673, p < .01$ ), što znači da ispitanici koji osjećaju veću emocionalnu iscrpljenost osjećaju i veću depersonalizaciju. Između osobnog postignuća i emocionalna iscrpljenost utvrđena je negativna korelacija ( $r = -.358, p < .01$ ), kao i između osobnog postignuća i depersonalizacije ( $r = -.199, p < .05$ ), što znači da ispitanici koji imaju manji osjećaj osobnog postignuća osjećaju veću emocionalnu iscrpljenost i veću depersonalizaciju. Nisu utvrđene razlike između ispitanika različitog pola u odnosu na pojedine dimenzije, s izuzetkom na osobnog postignuća, gde ispitanici ženskog pola manifestiraju veći stepen osobnog postignuća u radu. Analizom varijanse nismo utvrdili značajne razlike između ispitanika na pojedinim dimenzija s obzirom na uzrast, s izuzetkom na

depersonalizaciju, gde ispitanici koji pripadaju uzrasnoj grupi od 41-50 godina manifestiraju veći stepen depersonalizacije. Ne postoje razlike u stepenu izgaranja kod ispitanika s obzirom na dužine radnog staža.

Postoji povezanost između burnout sindroma i pojave simptoma anksioznosti i depresivnosti. Ispitanici koji osjećaju veću emocionalnu iscrpljenost na poslu, manifestiraju veći stepen anksioznosti ( $r = .736$ ,  $p < .01$ ) i depresivnosti ( $r = .679$ ,  $p < .01$ ). Ispitanici koji imaju veći stepen depersonalizacije imaju izraženije simptome anksioznosti ( $r = .444$ ,  $p < .01$ ), dok ispitanici koji imaju veći osećaj osobnog postignuća u poslu, imaju manji stepen anksioznosti i depresivnosti. Oni koji imaju uzraženije simptome anksioznosti imaju i izraženije simptome depresivnosti ( $r = .757$ ,  $p < .01$ ). Možemo zaključiti da nastavnici koji su podložniji većeg stepena profesionalnog izgaranja izloženi su na većeg rizika od pojave anksioznosti i depresivnosti.

*Ključne reči:* profesionalno izgaranje, anksioznost, depresivnost, nastavnici

### Syndrome of professional burnout in teachers and the onset of symptoms of anxiety and depression

Professional burnout syndrome is defined as a prolonged response to chronic exposure to emotional and interpersonal stressors on the job, which is manifested in terms of emotional exhaustion, depersonalization and fall of personal accomplishment (Maslach et al., 1996).

The aim of the research is to determine the degree of the burnout syndrome combustion of teachers, establishing linkages between burnout syndrome and the onset of symptoms of anxiety and depression, as well as to determine the differences in the level of professional combustion among respondents of different sex, age and length of service. The research was conducted on a sample of 110 secondary school teachers in Bitola. To measure the syndrome of professional burnout was used Maslach Burnout Inventory (Maslach et al., 1996), for determining the presence of symptoms of anxiety The Four System Anxiety Questionnaire (Koksal & Power, 1990), while depression was measured with Beck Depression Inventory II (Beck et al., 1996). The results showed a high degree of combustion in the dimension of professional achievement, while at the emotional exhaustion and depersonalization highest percentage of teachers have moderate level. As far as the interconnection of three dimensions, the results showed a significant correlation between the dimensions of emotional exhaustion and

depersonalization ( $r = .673, p < .01$ ), indicating that respondents who feel a greater sense of emotional exhaustion also feel a higher degree of depersonalization. Among the dimensions of personal achievement and emotional exhaustion, we found a negative correlation ( $r = -.358, p < .01$ ), and also between personal achievement and depersonalization ( $r = -.199, p < .05$ ), meaning that respondents who have a lower sense of personal achievement feel a greater emotional exhaustion and higher level of depersonalization. No differences were found between respondents of different gender in relation to certain dimensions, with the exception of the personal achievement, where female respondents manifest a greater degree of personal achievement at work. With the analysis of variance we have not found significant differences between respondents of different age in the individual dimensions, with the exception of the depersonalization, where respondents from the age group of 41-50 years manifested a higher degree of depersonalization. There are no differences in the degree of combustion in subjects with respect to length of service.

Respondents who manifest a greater emotional exhaustion at work, manifesting a greater degree of anxiety ( $r = .736, p < .01$ ) and depression ( $r = .679, p < .01$ ). Respondents who have a higher degree of depersonalization have pronounced symptoms of anxiety ( $r = .444, p < .01$ ), while the respondents who have a greater sense of personal achievement at work, have a lower level of anxiety and depression. Respondents who had more pronounced symptoms of anxiety also have pronounced symptoms of depression ( $r = .757, p < .01$ ).

*Keywords:* professional burnout, anxiety, depression, teachers

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## Struktura radne uspešnosti profesionalnih vojnika

Profesionalizacijom oružanih snaga Vojske Srbije, koja je započeta 2009. godine, formirana je nova kategorija kadra u Vojsci Srbije – profesionalni vojnici. S tim u vezi, pojavila se potreba za ispitivanjem strukture radne uspešnosti profesionalnih



vojnika. Primenom metoda analize posla identifikovane su aktivnosti i pokazatelji ponašanja koji su od posebnog značaja za procenu radne uspešnosti. Na osnovu dobijenih podataka konstruisan je Upitnik za procenu radne uspešnosti profesionalnih vojnika (u daljem tekstu: Upitnik) koji se sastoji iz dva dela: prvi deo – 40 ajtema u formi Likertove petostepene skale, koji su popunjavali prvopretpostavljene starešine na osnovu uvida u radno ponašanje profesionalnih vojnika (subjektivna supervizijska procena) i drugi deo – objektivni podaci o radnom učinku (dosadašnje službene ocene, ocena fizičke sposobnosti, izrečene disciplinske mere, ocene vojnostručne obučenosti i broj dana na bolovanju – apsentizam).

Pomoću navedenog Upitnika, u periodu od aprila do oktobra 2013. godine, izvršena je procena radne uspešnosti 1120 profesionalnih vojnika (1010 muškog i 110 ženskog pola). Obradom podataka utvrđena su psihometrijska svojstva Upitnika (Krombahov alfa koeficijent  $\alpha = .962$  i Kajzer-Mejer-Olkinova mera  $KMO = .972$ ).

Primenom metoda faktorske analize nasadržaj ajtema iz prvog dela Upitnika, ekstrahovana su tri faktora koja objašnjavaju 51% ukupne varijanse radne uspešnosti. Latentnu strukturu prvog dela Upitnika čine: opšta vojna kompetentost, disciplinovanost i vojnička izuzetnost.

Korelacionom analizom utvrđena je značajna povezanost između skoro svih objektivnih pokazatelja radne uspešnosti i latentnih faktora radne uspešnosti. Najviša korelacija utvrđena je između prvog faktora i ocene vojnostručne obučenosti ( $r = .659, p < .01$ ), dok je najniža dobijena između drugog faktora i fizičke sposobnosti ( $r = .141, p < .01$ ).

Dobijeni rezultati pokazuju da se procena radne uspešnosti profesionalnih vojnika može uspešno vršiti kako preko objektivnih pokazatelja, tako i preko pojedinačnih parametara koje procenjuje nadležni starešina. Ima osnova i za zaključak da je pouzdanije i objektivnije uzimati u obzir obe vrste podataka koje sadrži navedeni Upitnik, što opravdava njegovu upotrebu za procenu radne uspešnosti profesionalnih vojnika.

Pored navedenog, imajući u vidu da je objašnjena varijansa ukupne radne uspešnosti prvim faktorom 43%, kao i činjenice da sadržaj prvog faktora u sebi sadrži primese opšte mentalne sposobnosti i dimenzije ličnosti savesnosti, može se prepostaviti da je struktura radne uspešnosti profesionalnih vojnika pre jednodimenzionalna (sastavljena iz jednog opšteg faktora) nego multidimenzionalna.

*Ključne reči:* profesionalizacija vojske, radna uspešnost, Upitnik za procenu radne uspešnosti

## Job performance structure of professional soldiers

The process of professionalization in Serbian Armed Force, which has been started during 2009, contributed to form a new category of personnel – professional soldiers. In spirit of that, there was a need for examination of job performance structure for professional soldiers. Using the job analysis methods, we identify activities and behaviours which have special significance for job performance assessment. Based on obtained data from job analysis, Questionary for job performance assessment of professional soldiers (in further text: Questionary) has been developed. The Questionary consists of two parts: first – 40 items in Likert's five-level form, which has been fulfilled by first-level supervisory (subjective supervision assessment) and second – objective data about job performance (career's grades, physical ability grades, disciplinary errors, military training grades and absenteeism).

Using Questionary, in period from April to October 2013, the job performance assessment for 1120 professional soldiers has been finished (1010 male and 110 women). Psychometric characteristics of Questionary are: Cronbach alfa coefficient  $\alpha = .962$  and Kaiser-Meyer-Olkin measure  $KMO = .972$ .

Using the factor analysis on the items from first part Questionary, three factors have been extracted which explaining 51% of all over job performance variance. The latent structure of first part Questionary consists of: general military competence, disciplinary and military exceptionality.

Analysis of correlations gave information that there were significance correlation between almost all objective data and factors of job performance. The highest correlation is between first factor and military training grades ( $r = .659$ ), while the smallest between second factor and grade of psychical ability ( $r = .141$ ).

The results show that job performance assessment for professional solders can be successfully done as via objective data as via some parameters of subjective assess from supervisory. There is a base for concluding that it will be more reliable and objective if both kind of data use from Questionary in assessment, and that justifies using Questionary for job performance assessment professional soldiers.

Also, if we have in mind that first factor explain 43% of all variance, and facts that first factor has elements of general mental ability and conscientiousness – personnel dimension, it can be concluded that structure of job performance for professional soldier is rather unidimensional (consist of one general factor) than multidimensional.

**Keywords:** professionalization of army, job performance, Questionary for job performance assessment

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### Zadovoljstvo poslom, radno okruženje i polne razlike

Subjektivno blagostanje je veoma značajna komponenta mentalnog zdravlja ljudi, a odnosi na to kako ljudi evaluiraju sopstveni život i uključuje kognitivnu procenu i/ili procenu afekata. Bitan aspekt subjektivnog blagostanja i procene zadovoljstva životom kod odraslih osoba predstavlja zadovoljstvo poslom, samim tim što su zaposlenje i razvoj radnih veština među najznačajnijim razvojnim zadacima odraslog doba. Ciljevi ovog rada su bili da se utvrdi nivo zadovoljstva poslom i njegovim pojedinim aspektima, da se utvrde razlike u nivou zadovoljstva poslom kod ispitanika koji rade u različitim organizacijama kao i razlike u nivou zadovoljstva kod ispitanika različitog pola. U tu svrhu je korišćena skala Job Satisfaction Survey (JSS: Spector, 1985). Ova skala predstavlja skalu stavova kojom se procenjuju globalno zadovoljstvo poslom i devet aspekata zadovoljstva poslom (trideset šest ajtema, šestostepena skala Likertovog tipa). Skale imaju zadovoljavajuću pouzdanost. Uzorak istraživanja je činilo 128 ispitanika, koji su zaposleni u dve državne organizacije, ujednačenih po polu, prosečne starosti 39.9 godina (SD = 8.262). Dobijeni rezultati upućuju da ispitanici izražavaju nivo globalnog zadovoljstva poslom koji je nešto viši od teorijskog proseka skale (AS = 128.1 SD = 21.71). Analizom zadovoljstva aspektima posla se zaključuje da ispitanici imaju povišen nivo zadovoljstva pojedinim aspektima (nadređeni, sadarnici, priroda posla

i komunikacija), dok je za ostale aspekte posla nivo zadovoljstva snižen. Poredeći sa normama koje autori skale daju za pojedine profesije, može da se uoči odstupanje dobijenih rezultata ispitanika ovog istraživanja. Potvrđene su statistički značajne razlike u zadovoljstvu pojedinim aspektima kod ispitanika koji su zaposleni u različitim organizacija, kao i kod ispitanika različitog pola. Zaključak koji se može izvesti na osnovu dobijenih rezultata ovog istraživanja, je taj da zadovoljstvo poslom predstavlja višedimenzionalnu pojavu gde svaka od dimenzija ima svoj doprinos, veći ili manji, globalnom zadovoljstvu poslom. Ovo predstavlja značajnu implikaciju i smernicu menadžmentu ljudskih resursa, koji se kreirajući radno okruženje zaposlenih, mogu usmeriti na komponente koji su za pojedinca bitne i na taj način uticati na povećanje nivoa zadovoljstva aspektima posla, a samim tim povećati nivo globalnog zadovoljstva istim.

*Ključne reči:* zadovoljstvo poslom, aspekti zadovoljstva poslom, JSS, subjektivno blagostanje

### Job satisfaction, work environment and gender differences

Subjective well-being is a very important component of one's mental health and refers to how people evaluate their lives which includes cognitive judgments and/or affective judgments. Job satisfaction is considered to be an important aspect of subjective well-being and assessment of life satisfaction in adults due to the fact that employment and development of work skills are among the most important developmental tasks of adulthood. The aims of this paper were the following: to determine the level of job satisfaction and some of its aspects and to determine the differences in level of satisfaction in examinees working in different enterprises and the differences in level of satisfaction in male and female examinees as well. For that purpose Job Satisfaction Survey (JSS: Spector, 1985) was applied. This scale is an attitude scale used to assess overall life satisfaction and nine aspects of job satisfaction and it consists of 36 items measured on six-point Likert-type scale. The reliability of the scale is satisfactory. The research sample consisted of 128 examinees employed in two state-owned enterprises and involved the same number of male and female examinees with an average age of 39.9 years of age ( $SD = 8.262$ ). The results obtained show that examinees express the overall job satisfaction that is a little higher than a theoretical mean ( $AS = 128.1$   $SD = 27.71$ ). The analysis of satisfaction with some job aspects leads to the conclusion that examinees have higher level of satisfaction with certain aspects (supervisors, co-workers, nature of work and communication), while the level of

satisfaction with other aspects is lower. When comparing with the norms for certain professions offered by the authors of the scale a deviation of the scores obtained from examinees engaged in this research could be noticed. Statistically significant difference was found in satisfaction with certain aspects in examinees employed in different enterprises and in examinees of different genders. On the basis of the results obtained in this investigation it could be concluded that life satisfaction is a multidimensional phenomenon where each of dimensions contributes more or less to overall job satisfaction. It is a significant implication and directive for a human resource management which could be directed to the components known to be important to an individual in creating his/her work environment and thus affect the increase in the level of job satisfaction aspects and increase the level of job satisfaction as well.

*Keywords:* job satisfaction, aspects of job satisfaction, JSS, subjective well being



KLINIČKA PSIHOLOGIJA

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## Transfer of manualized CBT for social phobia into clinical practice: Does it lead to faster remission?

The biggest effects of cognitive-behavioral therapy (CBT) in the treatment of social phobia, as shown in numerous randomized controlled trials (RCT), were achieved through the appliance of the manualized approach of Clark and Wells (1995). However, little is known about the efficacy of this manualized treatment in routine clinical practice. These effects were studied in a large multicenter randomized trial. Thirty-six private practitioners from three major German cities (Dresden, Frankfurt and Göttingen) were randomly assigned to either training in manualized CBT (MCBT) or no specific training (CBT). A total of 162 patients were recruited for that study. Afterwards, the treatment effects of the therapies conducted by both groups were compared. As a secondary analysis in the mentioned RCT, the present study aimed to investigate whether the treatment duration of patients, who were treated with the manual-based approach was shorter, i.e. whether these patients reached remission, operationalized as a score at the Liebowitz Social Anxiety Scale lower than 30 points, faster than patients, who were treated by therapists with no specific training. The sample consisted of 43 patients (n for MCBT = 25, n for CBT = 18), for whom the session protocols, with all information necessary for the analysis, were available. The dependent variable was operationalized as the number of days between the date of the first therapy and the date at which remission occurred. The results of the analysis showed that, after controlling for contingent events which disrupted the planned frequency of therapy sessions, patients from the MCBT group needed statistically significantly less days to achieve remission than patients from the CBT group -  $t(41) = -2.407$ ;  $p = .044$  ( $d = .63$ ). With regard to the limitations of the study, the results provide first indications that manual-based treatment of Social Phobia in clinical practice might be more focused and goal-oriented, as well as less prone to mistakes and wrong decisions during the course of therapy, thus leading to faster results. The importance of these findings for the

dissemination of efficacious manualized therapies to routine clinical practice and other implications will be critically discussed.

**Keywords:** social phobia, manual-based treatment, cognitive-behavioural therapy, clinical practice, treatment duration

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### Demografski korelati samostišavanja, relacija sa pesimizmom i zadovoljstvom partnerskim odnosom

Empirijski podaci ukazuju na veću zastupljenost depresije kao dijagnostičke kategorije kod žena u odnosu na muškarce. Kao jedan od pokušaja objašnjenja veće vulnerabilnosti žena za depresiju razvijena je teorija samostišavanja. Koncept samostišavanja je konstruisan na osnovu longitudinalne studije depresivnih žena, a definiše se kao rodno specifična kognitivna šema koja omogućuje kreiranje i održavanje intimnog odnosa u kome žena potiskuje svoja osećanja, misli i akcije kako bi zadovoljila partnerove potrebe. Ova kognitivna šema je delimično nastala prilagođavanjem žena na rodne norme, reflektuje aktuelnu ili percipiranu moć žene u partnerskom odnosu, te usmerava na poželjno ponašanje čak i kada je ono u sukobu sa sopstvenim potrebama. Kasnija istraživanja relacije demografskih varijabli i samostišavanja nisu potvrdila rodnu specifičnost samostišavanja, ali je potvrđena povezanost sa zadovoljstvom brakom i usamljenošću. Dosadašnje studije u našoj zemlji se nisu bavile konceptom samostišavanja, te je sprovedeno istraživanje prvenstveno nastojalo da ispita relacije samostišavanja sa sociodemografskim varijablama. Ispitana je i relacija samostišavanja sa optimizmom – pesimizmom i zadovoljstvom brakom.

Uzorak je obuhvatao 657 odraslih osoba (58.1% žena) uzrasta od 18 do 89 godina. Nivo samostišavanja je ispitivan adaptiranom Skalom samostišavanja (Nekić i sar., 2006) koja meri stepen do kog osoba potvrđuje samostišavajuće misli i delovanja, a obuhvata četiri aspekta: samostišavanje, briga kao požrtvovanost,



eksternalizovano samoopažanje i podeljeno ja. Zadovoljstvo partnerskim odnosom je ispitano jednoajtemskom samoprocenom partnerskog odnosa. Nivo optimizma-pesimizma je meren Skalom optimizma – pesimizma. Rezultati istraživanja su pokazali da ne postoji značajna razlika u nivou samostišavanja između muškaraca i žena. Ovaj podatak je kompatibilan sa studijama koje ne govore u prilog rodne specifičnosti samostišavanja. Stariji ispitanici se više samostišavaju ( $r = -.171, p < .01$ ). Nivo samostišavanja se razlikuje u odnosu na bračni status ( $F(2,639) = 6.123, p < .05$ ). Kao što je na osnovu konceptualizacije samostišavanja i očekivano, ispitanici u braku imaju više skorove na skali u poređenju sa grupom ispitanika koji nisu u braku. Osobe sa nižim obrazovnim statusom se samostišavaju u višoj meri nego ispitanici sa višim obrazovanjem ( $F(2,639) = 3.234, p < .05$ ). Utvrđena je i razlika u nivou samostišavanja s obzirom na radni status ( $F(3,638) = 4.094, p < .05$ ) pri čemu penzioneri pokazuju značajno viši stepen samostišavanja u odnosu na nezaposlene i studente. Nije utvrđena značajna povezanost nivoa samostišavanja i zadovoljstva partnerskim odnosom. Regresiona analiza je pokazala da je pesimizam značajan prediktor samostišavanja ( $F(2,641) = 36.742, p < .01$ ), dok optimizam nije. Prema navedenim rezultatima može se reći da nije utvrđena rodna specifičnost samostišavanja, te da je samostišavanje više kod pesimista, osoba u braku, niže obrazovanih i penzionera.

*Ključne reči:* samostišavanje, pesimizam, partnerski odnos, odrasli

### Demographic correlates of the self-silencing, relations with pessimism and romantic relationship satisfaction

Empirical data indicates a greater frequency of depression as a diagnostic category in women, compared to men. The self – silencing theory was developed as an attempt, among others, to explain woman's greater vulnerability to depression. The self – silencing concept is based upon a longitudinal study of depressed women, and is defined as a gender-specific cognitive scheme that enables the creation and maintenance of an intimate relationship, in which women suppress their feelings, thoughts and actions in order to meet their partner's needs. This cognitive scheme was partly affected by adjusting the woman to gender norms, reflecting actual, or perceived, power of women in an intimate relationship, and focus on the desired behavior even when it conflicts with their own needs. Later studies didn't confirm self – silencing as gender specific. The relationship between the self-silencing and marriage satisfaction and loneliness was confirmed. Previous studies in our country didn't address the self – silencing concept, so the aim of the

current research was to examine the relation of self-silencing with demographic variables. Relations between self-silencing and optimism – pessimism, as well as marriage satisfaction, were explored too.

The sample included 657 adults (58.1% women and 41.9% men) aged 18 to 89 years. The self-silencing level was examined with adapted The Silencing the self scale (Nekić et al., 2006), which measures the degree of confirmation of self-silencing thoughts and actions, and includes four aspects: silencing the self, care as self-sacrifice, externalized self-perception and the divided self. Romantic relationship satisfaction was measured by one-item self-assessment. The level of optimism-pessimism was measured by the Scale of optimism - pessimism. The results showed no significant difference in the level of self-silencing between men and women. This data is compatible with studies which didn't confirm a gender specificity of the self-silencing. Older respondents showed higher level of the self-silencing ( $r = -0.171$ ,  $p < 0.01$ ). Level of the self-silencing varies in relation to marital status ( $F(2,639) = 6.123$ ,  $p < .05$ ). As it is expected, married respondents have higher scores on the scale, compared to the group of respondents that are not married. Respondents with lower educational status report higher degree of the self-silencing than respondents with higher education ( $F(2,639) = 3.234$ ,  $p < .05$ ). The study established the difference in the level of self-silencing with regards to the employment status ( $F(3,638) = 4.094$ ,  $p < .05$ ) in which pensioners show significantly higher levels of self-silencing than the unemployed and students. There was no significant correlation between the level of self-silencing and satisfaction in the romantic relationship. Regression analysis showed that pessimism is a significant predictor of the self-silencing ( $F(2,641) = 36,742$ ,  $p < .01$ ), while optimism is not.

**Keywords:** self-silencing, romantic relationship satisfaction, pessimism, adults

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## Fokusirane projektne intervencije i djeca iz višeproblemskih porodica u BiH

Cilj ovog istraživanja je utvrđivanje promjena u pet aspekata socio-emocionalnog funkcionisanja kod djece iz porodica sa višestrukim problemima, koja su bila uključena u aktivnosti dnevnih centara “Gnijezdo” (djece u riziku), kao i razlike u odnosu na njihove vršnjake (referentnu grupu).

Faktori rizika u porodicama, na osnovu kojih su djeca uključena u dnevne centre su: loši socio-ekonomski uslovi (80%), nasilno ponašanje (45,5%), raseljenost, izbjeglištvo ili pripadnost nacionalnim manjinama (33,9%), zloupotreba alkohola i droga (31%), hronične bolesti (12,5%), zatim, psihijatrijski poremećaji, mentalne ometenosti, seksualno zlostavljanje, kriminalitet i rana tinejdžerska trudnoća.

Istraživanje je urađeno u dvije faze. Inicijalnim ispitivanjem obuhvaćeno je 103 djece uzrasta 12-16 godina, a ponovljenim ispitivanjem njih 93, iz 5 gradova BiH. Uzorak je činilo 49.5% djece iz porodica sa višestrukim problemima i 50.5% djece iz tipičnih porodica. Podaci su prikupljeni samoprocjenom djece na Upitniku snaga i teškoća–SDQ (The Strengths and Difficulties Questionnaire), koji se sastoji od 25 stavki, raspoređenih na pet subskala. Pouzdanost upitnika na našem uzorku je  $\alpha = .72-.81$ . Za analizu podataka korištena je deskriptivna statistika i t-test. Podaci su prukupljeni u novembru 2013, a zatim ponovo nakon 18 mjeseci. U međuvremenu su djeca iz porodica sa višestrukim problemima pohađala fokusirane aktivnosti po metodologiji dnevnih centara Gnijezdo, koje su se odnosile na podršku u učenju i organizovanje slobodnih aktivnosti.

Rezultati inicijalnog ispitivanja pokazuju da djeca u riziku imaju više teškoća u emocionalnom funkcionisanju u odnosu na referentnu grupu ( $t(98) = 3.50, p < .01$ ), dok razlike prosjeka na ostalim subskalama nisu značajne. Prema rezultatima završnog mjerenja, uočava se da se ukupne vrijednosti, odnosno poteškoće, na pojedinačnim subskalama smanjuju. Statistički značajne razlike između djece iz rizične grupe i djece iz referentne grupe su evidentne na Subskali emocionalnih simptoma ( $t(91) = 3.26, p < .01$ ), Subskali problema sa vršnjacima ( $t(91) = 2.11, p < .05$ ),

te na ukupnoj SDQ skali ( $t(84) = 3.17, p < .01$ ). Moguće objašnjenje ovih razlika je u prosječnoj starosnoj razlici koja iznosi oko 6 mjeseci i povoljnijem porodičnom okruženju djece iz referentne grupe.

Praćenjem djece u riziku uočava se poboljšanje funkcionisanja na svim mjerenim skalama. Statistički značajne razlike su prisutne na Subskali emocijanih simptoma ( $t(25) = 2.16, p < .05$ ), kao i na ukupnom rezultatu SDQ skale ( $t(22) = 2.10, p < .05$ ). S obzirom da su faktori rizika u okviru porodica ostali nepromijenjeni, a u nekim porodicama se i pogoršali (nezaposlenost i siromaštvo), može se pretpostaviti da je navedeno poboljšanje funkcionisanja djece u riziku dobrim dijelom efekat provedenih intervencija. Na osnovu rezultata, moguće je pretpostaviti da bi promjene u funkcionisanju djece bile značajnije nakon duže primjene navedenih intervencija.

*Ključne reči:* djeca u riziku, porodice sa višestrukim problemima, emocionalni simptomi

### Focused project interventions and children from multi-problem families

The aim of this study was to examine changes in five aspects of socio-emotional functioning of children from multi-problem families, who have been involved in the activities of daycare Nest Centres, as well as differences between them and their peers from typical families.

The children have been involved in the Nest Centers on the base of following risk factors: poor socio-economic status (80%), family violence (45.5%), refugee status, displacement or belonging to an ethnic minority (33.9%), alcohol and drug misuse (31%), chronic illnesses (12.5%), then psychiatric disorders, intellectual disabilities, sexual abuse, criminal behavior, and teenage pregnancy.

Through the initial phase of research, we examined 103 children aged 12-16 years, and the second, re-assessment phase included 93 children from 5 towns in BiH. The sample consisted of 49.5% children from multi-problem families and 50.5% children from typical families. The data was collected through The Strengths and Difficulties Questionnaire-SDQ, which consists of 25 items divided into five subscales. The reliability of the Questionnaire in our study was  $\text{Alpha} = .72-.81$ . Descriptive statistics and t-test were used for data analysis. The data was collected during November 2013, and again 18 months later. During this period, children from multi-

problem families were included in focused activities of daycare Nest Centers, including supported learning and organized free time.

The results of the initial self-assessment show that children at risk have more difficulties in emotional functioning than children from the reference group ( $t(98) = 3.5, p < .01$ ), while the differences on other subscales are not significant. Although, according to the final assessment results, difficulties in all five aspects in functioning of these children are reduced, there still are differences from the reference group on Emotional Symptoms Subscale ( $t(91) = 3.26, p < .01$ ), and Peer Problems Subscale ( $t(91) = 2.11, p < .05$ ), as well as in Total SDQ Score ( $t(84) = 3.17, p < .01$ ). A possible explanation of these differences lies in the average age difference of 6 months in favor of the children in reference group, as well as their favorable family environment.

Following children at risk there has been observed improving of their functioning in relation to the previous year. Statistically significant differences has been observed on the Emotional Symptoms Subscale ( $t(25) = 2.16, p < .05$ ), as well as in the total SDQ score ( $t(22) = 2.10, p < .05$ ). Considering that risk factors in multi-problem families have not changed, they even have become worse, it is presumed that observed improving of children's functioning could be an effect of applied interventions. It could be, also, presumed that continuous application of these project interventions would be leading to more significant changes of children's functioning.

**Keywords:** multi-problem families, children at risk, emotional symptoms

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**Koliko je važna socijalna podrška u kasnom odraslom dobu?**

Kasno odraslo doba je period života koji se odlikuje brojnim specifičnostima, među kojima se ističu smanjena fizička spremnost, smanjena sposobnost adaptacije, povećana zavisnost od drugih, kao i usamljenost. Istraživanja pokazuju da socijalne relacije i socijalna podrška, koncepti kojima se u poslednje vreme posvećuje sve

više pažnje, imaju veoma važnu ulogu u zdravlju i zadovoljstvu životom osoba kasne odrasle dobi. Dosadašnji nalazi nesumnjivo pokazuju da je postojanje socijalne podrške u životu osoba kasne odrasle dobi povezano sa boljim funkcionisanjem i zdravljem, izraženijim blagostanjem, boljom adaptacijom i oporavkom od distresa, dok se odsustvo socijalne podrške povezuje sa simptomima anksioznosti i depresije, te nižim nivoom blagostanja. U ovom istraživanju, postavlja se pitanje na koji način socijalna podrška, te koja njena vrsta, utiče na odnos između toga kako osobe kasne odrasle dobi procenjuju sopstveni zdravstveni status i koliko su zadovoljne sopstvenim životom. Cilj ovog istraživanja, stoga, jeste da se utvrdi da li socijalna podrška, i koja vrsta podrške - emocionalna ili instrumentalna socijalna podrška, ima promotivnu i/ili protektivnu ulogu u relaciji subjektivne procene zdravlja i indikatora blagostanja, specifičnije, zadovoljstva životom.

U istraživanju je učestvovalo 204 ispitanika prosečnog uzrasta 78 godina, pri čemu je uzorak činilo 60% žena i 40% muškaraca. Kako je u pitanju transverzalno istraživanje, u istoj vremenskoj tački prikupljene su mere subjektivne procene zdravstvenog statusa, procene zadovoljstva životom i procene dve vrste podrške - emocionalne i instrumentalne socijalne podrške. Sprovedene su dve linearne hijerarhijske analize, pri čemu su, prilikom ispitivanja moderatorske uloge emocionalne podrške u odnosu između subjektivne procene zdravstvenog statusa i zadovoljstva životom, dobijena značajna oba glavna efekta, kao i značajna interakcija ( $\beta = -.134, p < .05$ ). Dobijeni rezultati nam sugerišu kako promotivnu tako i protektivnu ulogu emocionalne podrške kod osoba kasne odrasle dobi, a nezavisno od toga koju ulogu ostvaruje, njen uticaj na zadovoljstvo životom je uvek pozitivan. Zaključujemo da je emocionalna podrška generalno faktor dobre adaptacije, koji, takođe, posebno doprinosi boljoj adaptaciji u situacijama povećanog rizika, u odnosu između subjektivne procene sopstvenog zdravlja i blagostanja, konkretno, zadovoljstva sopstvenim životom.

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*Ključne reči:* subjektivna procena zdravstvenog statusa, zadovoljstvo životom, socijalna podrška, kasna odrasla dob

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## How important is the social support in late adulthood?

Late adulthood is a period of life characterized by many specificities, among which are decreased physical fitness, reduced ability to adapt, increased dependence on others and loneliness. Researches show that social relations and social support, concepts which recently gained more attention, have a very important role in health and life satisfaction of people in the late adulthood. Former findings show undoubtedly that the existence of social support in life of the late adulthood is associated with better functioning and health, increased prosperity, better adaptation and recovery from distress, while the absence of the social support is associated with symptoms of anxiety and depression and, also, lower levels of well-being. In this research, the question asked is in which way will social support, and what kind of it, affect the relationship between how people in late adulthood assess their own health status and whether they are satisfied with their own lives. The aim of this study, therefore, is to determine whether the social support, and what kind of it - the emotional or instrumental social support, has promotional and/or protective role in relationship between subjective assessment of indicators of health and well-being, specifically, the life satisfaction.

This study included 204 subjects, mean age of 78 years, whereby the sample consisted of 60% of women and 40% of men. Since this is a transversal research, measures of subjective assessment of health status, life satisfaction assessment and the evaluation of two types of support - the emotional and instrumental social support were collected at the same point of time. Two hierarchical linear analysis were conducted, whereby both main effects were found significant while testing the moderator role of emotional support in relationship between the subjective assessment of health status and the satisfaction with life, as well as significant interaction ( $\beta = -.134, p < .05$ ). The obtained results suggest promotional as well as protective role of the emotional support when it comes to people in late adulthood. Also, regardless of its realized role, the emotional support always had positive impact on life satisfaction. We conclude that the emotional support is generally factor of good adaptation, which also has a specific contribution to better adaptation in situations of the increased risk, when it comes to the relationship between the subjective assessments of their own health and well-being, in particular, satisfaction with their own lives.

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Keywords: subjective evaluation of health status, life satisfaction, social support, late adulthood

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Moderaciona uloga obrazaca afektivne vezanosti sa značajnim osobama u odrasлом dobu u odnosu između negativnih iskustava u detinjstvu i zadovoljstva životom

Prema pretpostavkama teorije afektivne vezanosti način na koji percipiramo sebe i značajne druge u aktuelnim relacijama, pod velikim je uticajem ranih iskustava sa figurama vezanosti. Ipak, pretpostavka ovog modela je da se u aktuelnim relacijama obrasci vezivanja u nekom stepenu mogu menjati i da su rezultat nove interakcije koja se ostvaruje. Iako je veliki broj istraživanja bio usmeren ka ispitivanju uloge koju obrasci afektivne vezanosti generalno i u pojedinačnim relacijama imaju na mentalno zdravlje, mali broj istraživanja se fokusirao na način na koji obrasci vezanosti koje osobe ostvaruju u odrasлом dobu, mogu menjati efekte ranih negativnih porodičnih iskustava na procenu zadovoljstva životom. Cilj ovog istraživanja je da ispita moderacionu ulogu unutrašnjeg radnog modela sebe (anksioznost) i značajnih drugih (izbegavanje), tj. obrazaca afektivne vezanosti koje osobe ostvaruju u relaciji sa partnerom i najboljim prijateljem, a u odnosu između percipiranja negativnih iskustava u detinjstvu i zadovoljstva životom.

Istraživanje je sprovedeno na 567 studenata Univerziteta u Novom Sadu u dva kruga istraživanja, u razmaku od šest meseci. Korišćeni su: subskala Nerazrešene porodične traumatizacije, revidirane verzije Upitnika za procenu afektivnog vezivanja (UPIPAV-R), Upitnik za ispitivanje iskustva u bliskim odnosima (ECQ) (T1)–skorovi za relaciju sa partnerom i najboljim prijateljem i Skala zadovoljstva životom (SWLS) (T2).

Za proveru trostruke interakcije dimenzija anksioznosti i izbegavanja u odnosu sa partnerom i najboljim prijateljem, a u relaciji između ranih stresora i zadovoljstva životom korišćena je hijerarhijska regresiona analiza. Rezultati pokazuju da zadovoljstvu životom doprinose percipiranje negativnih iskustava u detinjstvu i



anksioznost u relaciji sa najboljim prijateljem. U slučaju provere moderatorske uloge dve dimenzije afektivnog vezivanja u relaciji sa partnerom, pored doprinosa koji ostvaruju anksioznost i negativna rana iskustva, dobija se značajan interaktivni efekat ranih stresora i izbegavanja, kao i trostruka interakcija. Osobe koje su sigurno afektivno vezane za partnera izveštavaju o višem zadovoljstvu životom, u poređenju sa ostala tri obrasca vezanosti u uslovima odrastanja koji odgovaraju neintenzivnim ranim negativnim iskustvima. Međutim kada su osobe u detinjstvu bile izložene maltretmanu dolazi do izveštavanja o smanjenom doživljaju zadovoljstva životom kod sigurno afektivno vezanih za partnera, koji je ujednačen sa skorovima na ovoj meri kod preokupiranog i plašljivog obrasca. Osobe koje spadaju u izbegavajući obrazac afektivne vezanosti u partnerskoj relaciji doživljavaju stabilan nivo zadovoljstva životom, bez obzira na izloženost negativnim ranim iskustvima i on je u uslovima visokog ranog stresa viši nego u slučaju ostalih obrazaca. Rezultati ovog istraživanja govori u prilog uloge koju relacije ostvarene u odraslom dobu mogu imati u modifikovanju efekata ranog stresa na zadovoljstvo životom.

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*Ključne reči:* afektivna vezanost, zadovoljstvo životom, nerazrešena porodična traumatizacija, trostruka interakcija

### Moderation role of attachment patterns in adulthood in the relationship between childhood adversity and life satisfaction

According to assumptions of Attachment theory, the way we see ourselves and significant others in current relations is under the big influence of our relations with attachment figure. Although, the assumption of this model is that attachment patterns can be changed at some level and that they are the result of the interaction with other people in adulthood. The great number of research was aimed at the role of attachment patterns in general and in individual current relations which it has on mental health. On the other side, small number of research was focused on a way in which attachment patterns, which an individual has with significant others in adulthood (partner or best friend) can change the effect of childhood adversity on life satisfaction. The aim of this research is to examine moderation role of internal working model of self (dimension of anxiety) and significant others (dimension of avoidance) which individuals have in relation

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with partner or best friend, in relationship between childhood adversity and life satisfaction.

Longitudinal data were collected in two waves from 567 university students. Firstly, participants completed the Questionnaire for Assessment of Adult and Adolescent Attachment: subscale of Unresolved Family Traumatization (UPIPAV-R) and Experience Close Questionnaire (ECR) - which groups people into four different categories on the basis of scores along two scales: avoidance and anxiety. Six months after the initial assessment participants completed the Satisfaction with Life Scale (SWLS). The data were analyzed using hierarchical regression analyses.

The results show that childhood adversity and anxiety in relation with best friend contribute to level of life satisfaction. The check of moderation role in two-way dimension of attachment pattern in relation with partner, beside anxiety and childhood adversity contribution, shows the significant interactive effect of childhood adversity and avoidance, as the three-way interaction of anxiety, avoidance and childhood adversity. Individuals who are secure attached to a partner report higher level of life satisfaction in comparison with other three attachment patterns in the way of growing up which corresponds to rare and weak childhood adversity. However, when the individuals were maltreated in primary family, it is reported lower life satisfaction level by individuals with secure attachment with partner, which is equal to scores in this measure to ambivalent attachment and disoriented attachment individuals. The individuals with anxious-avoidant insecure attachment in relation with partners experience stable level of life satisfaction, regardless the childhood adversity exposure, and it's higher under the early high stress than in other three patterns. Conclusions and practical implications are further discussed.

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**Keywords:** theory of attachment, life satisfaction, childhood adversity, three-way interaction

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## Privrženost i prilagodba na studij: Koliko su važna iskustva u bliskim odnosima?

Naši uspostavljeni odnosi s objektima privrženosti utiču na naš način gledanja socijalnog svijeta te na naša očekivanja o drugima. Problem uspostavljanja adekvatnih interpersonalnih odnosa može pogoditi brojne aspekte studentskog života, uključujući kako teškoće u savladavanju akademskih zahtjeva, tako inarušavanje odnosa sa drugim studentima i nastavnim osobljem. Brojni autori smatraju da je vrlo važno da mladi ljudi imaju siguran stil privrženosti kako bi se efikasno adaptirali na prelazak na studij. Stoga je cilj ovog rada bio ispitati odnos između privrženosti i različitih aspekata prilagodbe na studij. Uzorkom je obuhvaćeno 811 ispitanika, od čega 62.9 % ženskih i 37.1 % muških ispitanika. Ispitanici su ispunili Skalu prilagodbe studenata na studij SACQ i Inventar iskustva u bliskim odnosima. Prilagodba na studij testirana je kroz aspekte emocionalne, socijalne i akademske prilagodbe. Prema objektu privrženosti razlikovana je privrženost roditeljima i privrženost prijateljima. Oko 2/3 ispitanika ima niske skorove na dimenzijama anksioznosti i izbjegavanja, čime se 2/3 ispitanika nalazi u kategoriji sigurne privrženosti. Iako je distribucija rezultata prividno ujednačena u kategorijama privrženost prema roditeljima i privrženost prema prijateljima, dobiveni hi kvadrat statistik je značajan ( $\chi^2 = 23.01$ ,  $df = 3$ ,  $p < .001$ ). Statistička značajnost proizašla je zbog razlika unutar kategorije odbijajuća privrženost. Prema roditeljima veći broj ispitanika osjeća kombinaciju niske anksiozne privrženosti, a visoke izbjegavajuće, nego što je to slučaj prema prijateljima. U svim analiziranim slučajevima kod predikcije aspekta studentske prilagodbe izdvojena je po jedna regresiona funkcija. Dobivene regresione funkcije su relativno skromne i na osnovu istih moguće je predvidjeti od 14% varijanse za akademsku prilagodbu ( $R = .37$ ,  $p < .001$ ) do 19% varijanse ( $R = .44$ ,  $p < .001$ ) za emocionalnu prilagodbu. Prediktivnom modelu akademske prilagodbe statistički značajno na nivou  $p < .001$  i  $p < .005$  pridonose prediktorske varijable: izbjegavajuća privrženost roditeljima ( $\beta = -.16$ ), anksiozna privrženost prijateljima ( $\beta = -.12$ ), izbjegavajuća privrženost prijateljima ( $\beta = -.11$ ) i anksiozna privrženost roditeljima ( $\beta = -.10$ ). Socijalnu prilagodbu statistički značajno objašnjavaju dva prediktora: izbjegavajuća privrženost prijateljima ( $\beta = -$

.26) i izbjegavajuća privrženost roditeljima ( $\beta = -.14$ ). Objašnjavanju emocionalne prilagodbe statistički značajno doprinose prediktori: anksiozna privrženost roditeljima ( $\beta = -.27$ ), anksiozna privrženost prijateljima ( $\beta = -.15$ ) i izbjegavajuća privrženost prijateljima ( $\beta = -.08$ ). Prema dobivenim rezultatima može se zaključiti da sve vrste privrženosti roditeljima i prijateljima doprinose objašnjenju prilagodbe studenata na studij, pri čemu je najviši doprinos aspektu emocionalne i socijalne prilagodbe, a nešto manje izražen doprinos akademskoj i institucionalnoj prilagodbi studenata.

*Ključne reči:* emocionalna prilagodba, socijalna prilagodba, akademska prilagodba, privrženost

### Attachment and adjustment to college: How important are experiences in close relationships?

Our established relationships with objects of attachment affect our way of seeing the social world and our expectations of others. The problem of establishing appropriate interpersonal relationships can affect many aspects of student life, including difficulties in overcoming academic requirements, as well as disruption of relationships with other students and teachers. Many authors believe that it is very important that young people have a secure attachment style in order to effectively adapt to the transition to college. Therefore, the aim of this study was to examine the relationship between attachment and various aspects of student adjustment to college.

The sample included 811 respondents, of which 62.9% women and 37.1% of male respondents. Age has varied in the range of 19 to 43 years ( $M = 21.88$ ;  $\sigma = 2.35$ ;  $M_{\text{ares}} = 21$ ;  $S_{\text{k}} = 2.97$ ;  $K_{\text{u}} = 17.70$ ). There has no age difference between the sexes ( $M_{\text{f}} = 21.87$ ;  $M_{\text{w}} = 21.88$ ;  $t = -.03$ ,  $df = 804$ ,  $p = .97$ ;  $F_{\text{L}} = 3.57$ ;  $\mu = .06$ ). Participants completed scale of college adjustment SACQ (Student Adaptation to College Questionnaire) and Experiences in Close Relationship Inventory. Adjustment to college was observed through the aspects of the emotional, social and academic adjustment. According to the object of affection attachment to parents and attachment to friends is tested. About two-thirds of respondents had low scores on the dimensions of anxiety and avoidance, so the 2/3 of the respondents is categorized in the group of secure attachment. Although the distribution of the results seemingly uniform with attachment to parents and to friends, obtained Chi-square statistics was significant ( $\chi^2 = 1.23$ ,  $df = 3$ ,  $p < .001$ ). Statistical significance

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arose due to differences within the category of avoidant attachment. In all the analyzed cases there was one regression function for each aspect of student adjustment to college. The resulting regression functions are relatively modest, and based on them it is possible to predict from 14% of variance for academic adjustment ( $R = .37, p < .001$ ) to 19% of the variance ( $R = .44, p < .001$ ) for emotional adjustment. To the predictive model of academic adjustment statistically significant at level  $p < .001$  and  $p < .005$  contribute predictor variables: avoiding attachment to parents ( $\beta = -.16$ ), anxious attachment to friends ( $\beta = -.12$ ), avoiding attachment to friends ( $\beta = -.11$ ) and anxious attachment to parents ( $\beta = -.10$ ). Social adjustment is significantly explained through the two predictors: avoiding attachment to friends ( $\beta = -.26$ ) and avoiding attachment to parents ( $\beta = -.14$ ). To explaining the emotional adjustment significantly contribute predictors: anxious attachment to parents ( $\beta = -.27$ ), anxious attachment to friends ( $\beta = -.15$ ) and avoiding attachment to friends ( $\beta = -.08$ ).

According to the results it can be concluded that all types of attachment to parents and friends contribute to the explanation of the adjustment of students to college.

Keywords: emotional adjustment, social adjustment, academic adjustment, attachment

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## Psihološki problemi studenata i njihov odnos prema traženju profesionalne psihološke pomoći

Epidemiološka istraživanja širom sveta konzistentno ukazuju na jaz između porasta rasprostranjenosti problema mentalnog zdravlja mladih i niskog stepena korišćenja stručnih službi u njihovom rešavanju. Razumevanje ovog jaza, koji postoji nezavisno od vrste i ozbiljnosti problema, predstavlja već skoro pola veka veliki izazov za istraživače i praktičare u oblasti mentalnog zdravlja. Ciljevi rada su ispitati: 1. Da li su karakteristike psiholoških problema studenata (broj, vrsta i samoprocenjena ozbiljnost) povezani sa njihovom potrebom i namerom da potraže profesionalnu psihološku pomoć (PPP); 2. Kome bi se studenti najradije obratili za pomoć kada bi imali neki psihološki problem; 3. Koliko su studenti informisani o tome gde mogu da potraže PPP. Uzorku od 454 studenta Univerziteta u Beogradu (80% ženskog pola, od 18 do 35 godina) zadati su Modifikovani inventar ličnih problema Gima i saradnika i dodatna pitanja o doživljenoj ozbiljnosti problema, potrebi i nameri traženja PPP, izvoru pomoći kojem bi se najradije obratili, kao i informisanosti o mestu na kojem mogu potražiti PPP. Rezultati pokazuju da su najzastupljeniji problemi u domenu anksioznosti (80,8%) a najmanje su zastupljeni zloupotreba alkohola (5,7%) i droga (2%). Na poduzorku studenata kod kojih problemi aktuelno perzistiraju ( $n = 264$ ) ustanovljeno je da sa povećanjem broja problema raste i učestalost potrebe za PPP [ $\chi^2(2) = 25.24, p < .001, V = 0.31$ ] a takođe i namera da se potraži PPP [ $\chi^2(2) = 17.72, p < .001, V = 0.26$ ]. Psihološki problemi koji najčešće stvaraju potrebu za PPP su istovremeno i problemi zbog kojih studenti najčešće imaju nameru da potraže PPP. Međutim, kod većine psiholoških problema samo polovina studenata koji imaju potrebu ima i nameru da potraži PPP! Sa porastom ozbiljnosti problema raste učestalost i potrebe i namere traženja PPP. Studenti bi za svoje aktuelne probleme najradije potražili pomoć stručnjaka (50,4%), bliskih osoba (prijatelja, partnera, člana porodice) – 32,2%, rođaka (13,3%), a najređe sveštenika ili „alternativca“ – 1,1%. Više od polovine (59%) studenata zna gde može da potraži PPP, pri čemu kod studenata koji imaju aktuelnu potrebu postoji snažna veza između informisanosti i namere da se potraži PPP [ $\chi^2(1) = 11.90, p = .001, V = 0.32$ ]. Dakle, iako su karakteristike psiholoških problema (broj,

vrsta i ozbiljnost) povezane sa odnosom studenata prema traženju PPP, diskrepanca između njihove potrebe i namere da potraže PPP i dalje opstaje. Jedan od izvora te diskrepance, koji je moguće relativno lako otkloniti, jeste nedovoljna informisanost o tome gde mogu da potraže PPP zavisno od problema.

*Ključne reči:* psihološki problemi, traženje profesionalne psihološke pomoći, studenti

### Psychological problems of students and their intentions toward seeking professional psychological help

Epidemiological studies throughout the world consistently point to the gap between the increase in the prevalence of mental health problems of young people and the low level of utilization of professional services in their solution. Understanding this gap, that exists independently of the type and severity of the problems, is already almost half a century a major challenge for researchers and practitioners in the field of mental health. The goal of this research was to examine: 1. Are the characteristics of psychological problems (number, type and self estimated severity) among students associated with their needs and intentions to seek professional psychological help (PPH); 2. To whom the students would prefer to turn for help if they have a psychological problem; 3. How well the students are informed about where to seek PPH. A sample of 454 students of the University of Belgrade (80% females, 18 to 35 years) responded to a modified Inventory of personal problems of Gim et al., and to additional questions about the severity of their problems, needs and intentions to seek PPH, preferred sources of psychological help as well as their knowledge about where to seek it. The results show that the most frequent problems were in domain of anxiety (80.8%), while alcohol (5.7%) and drug (2%) abuse were the least frequent. Analyses done in the subsample of students with persisting problems ( $n = 264$ ) showed that increase in the number of the problems was accompanied with increase in frequency of need for PPH [ $\chi^2(2) = 25.24, p < 0.001, V = 0.31$ ] and of intention to seek PPH [ $\chi^2(2) = 17.72, p < 0.001, V = 0.26$ ]. The psychological problems that create most often the need for PPH create also the intention to seek PPH. For most problems, only the half of students in need intend to seek PPH. With increase of severity of problems, the frequencies of need and intention of seeking PPH are also increasing. For the problems they have actually, students would prefer to seek help from professionals (50.4 %), significant others (friends, partner, family member) -32.2%, relatives (13.3%), and least frequently from priests or "alternative health care

providers" - 1.1%. Over half (59%) of all students know where to seek PPH, and among those in need there is a strong association between the knowledge and the intention to seek PPH [ $\chi^2(1) = 11.90, p = .001, V = 0.32$ ]. Thus, although the characteristics of psychological problems (number, type and severity) are associated with the students' needs and intentions to seek PPH, the discrepancy between needs and intentions still persists. One source of this discrepancy, which could be eliminated relatively easy, is the lack of knowledge where to seek PPH for various problems.

**Keywords:** psychological problems, seeking professional psychological help, students

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## Relacije između ispitne anksioznosti, mehanizama suočavanja i ishoda stresne transakcije

Predmet sprovedenog istraživanja predstavlja utvrđivanje prirode složenih relacija između tri grupe fenomena: ispitne anksioznosti, mehanizama suočavanja sa stresom i izlaznih varijabli ispitivane stresne transakcije (postignutog uspeha na kolokvijumu i emocionalnog stanja studenata nakon evaluativne situacije). Sprovedena studija je imala za cilj eksploraciju kako direktnih, tako i indirektnih odnosa među izučavanim varijablama. Posebna pažnja je posvećena medijacionoj ulozi strategija za suočavanje sa stresom u relaciji između stepena izraženosti ispitne anksioznosti, s jedne strane, i ishoda stresne transakcije, s druge strane.

Istraživanje je sprovedeno na prigodnom uzorku od ukupno 263 ispitanika. Subjekti istraživanja su bili studenti odseka za psihologiju i germanistiku Filozofskog fakulteta u Novom Sadu. Korišćeni su sledeći merni instrumenti: Inventar ispitne anksioznosti (TAI), Inventar za procenu suočavanja sa stresnim zadacima (CITS) i Srpski inventar afekta (SIAB-PANAS). Varijabla uspeha je operacionalizovana u vidu postignutih poena na predispitnom testu znanja.

Podaci su analizirani multiplom medijacionom analizom. Rezultati ukazuju na to da je suočavanje usmereno na osećanja u direktnoj vezi sa lošijim uspehom na



kolokvijumu, a istovremeno služi i kao posrednik, preko kojeg ispitna anksioznost indirektno predviđa slabiji uspeh, bez obzira na nepostojanje direktne veze između ispitne strepnje i uspeha na kolokvijumu. Nadalje, suočavanje usmereno na emocije je u direktnoj vezi sa izraženijim doživljavanjem negativnog afektiviteta nakon završetka ispitne situacije, a istovremeno predstavlja i medijator, preko kojeg ispitna anksioznost indirektno amplifikuje negativne emocije neposredno posle kolokvijuma. Prevladavajući postupci usmereni na osećanja su u direktnoj vezi sa doživljavanjem pozitivnog afektiviteta posle kolokvijuma, a istovremeno predstavljaju i posrednike, preko kojih ispitna anksioznost indirektno umanjuje pozitivne emocije neposredno nakon završetka polaganja testa znanja. Prema tome, jedino su se mehanizmi suočavanja usmereni na emocije pokazali kao statistički značajni medijatori relacije između izraženosti ispitne anksioznosti i ishodnih promenljivih.

*Ključne reči:* ispitna anksioznost, suočavanje sa stresom, uspeh, emocionalno stanje

### Relations between test anxiety, coping mechanisms and outcomes of the stressful transaction

The subject of the research is to determine the nature of complex relations among three groups of phenomena: test anxiety, coping mechanisms and outcome variables of the examined stressful transaction (achieved results on the test and emotional state of students after the evaluative situation). The aim of the research is to explore both direct and indirect relations among the explored variables. A special attention is paid to the mediation role of coping strategies in relation between the level of the test anxiety on one hand, and the outcome of the stressful transaction, on the other hand.

The research was conducted on a sample of 263 respondents. Subjects of the research were students of the Department of Psychology and Department of German Studies at the Faculty of Philosophy in Novi Sad. The following measuring instruments were used in the research: Test Anxiety Inventory (TAI), Coping Inventory for Task Stress (CITS) and Serbian Affect Inventory (SIAB-PANAS). The achievement variable is operationalized in the form of points scored on the pre-exam test of knowledge. Data were analyzed by multiple mediation analysis.

The results indicate that emotion-focused coping is directly related to poorer achievement on the test. At the same time, it is also a mediator through which test anxiety indirectly predicts underachievement, notwithstanding the absence of a

direct relation between test anxiety and the achievement on the test. Furthermore, emotion-focused coping is directly related to the more explicit experience of negative affectivity after completion of the test situation. At the same time, it is also a mediator through which test anxiety indirectly amplifies negative emotions immediately after the test. Emotion-focused coping is directly related to the perception of positive affectivity after the test. At the same time, it is also a mediator through which test anxiety indirectly reduces positive emotions immediately after completion of the test of knowledge. Accordingly, only the coping mechanisms focused on emotions proved to be statistically significant mediators of relations between the level of test anxiety and the outcome variables.

**Keywords:** test anxiety, coping mechanisms, achievement, emotional state

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## Samopercepcija zdravlja roditelja djece sa pervazivnim razvojnim poremećajima

Pervazivni razvojni poremećaj se danas definiše kao organsko – razvojni poremećaj funkcionisanja mozga koji se manifestuje kroz poteškoće u društvenim interakcijama i komunikaciji, te stereotipnim oblicima ponašanja. Prevalencija pervazivnog razvojnog poremećaja bilježi stalan porast i prema izvještajima Svjetske zdravstvene organizacije iznosi 6.6 na 1000 djece. Najnovije smjernice u terapiji i rehabilitaciji djece sa ovim poremećajem tiču se zdravlja roditelja kojizauzimaju centralnu ulogu u procesima tretmana i rehabilitacije djece sa ovom vrstom problema.

Cilj ovog istraživanja je bio, utvrditi razlike u samopercepciji zdravlja, između roditelja djece sa pervazivnim razvojnim poremećajem i roditelja djece tipičnog razvoja. U istraživanju je korišten upitnik za subjektivnu procjenu zdravstvenog statusa SF-36 autora Ware-a i saradnika iz 2000. godine koji se sastoji od devet dimenzija koje čine profil zdravstvenog statusa. Istraživanjem je obuhvaćeno 15

bračnih parova, trideset roditelja djece sa pervazivnim poremećajem i 30 bračnih parova, šezdeset roditelja djece tipičnog razvoja, predškolskog i školskog uzrasta, do petog razreda osnovne škole.

Rezultati, dobijeni multivarijantnom analizom varijanse, pokazuju da roditelji djece sa razvojnim poremećajima imaju statistički značajno lošiju samoprocjenu zdravlja u odnosu na kontrolnu grupu. Ovo istraživanje može poslužiti kao početak budućih istraživanja o roditeljima djece s pervazivnim razvojnim poremećajima, o njihovim potrebama i teškoćama sa kojima se susreću, a rezultati dobijeni ovom i eventualnim budućim studijama bi se mogli koristiti za stalno unapređenje blagostanja ovog vulnerabilnog dijela populacije.

*Ključne reči:* pervazivni razvojni poremećaj, kvalitet života, samopercepcija zdravlja, tretman i rehabilitacija

### Self-assessment of health among parents of children with pervasive developmental disorders

Pervasive development disorder is defined as organic-developmental disorder of brain function that manifests as difficulties in social interactions and communication, as well as stereotypic behavior forms. Prevalence of pervasive development disorder records continuous growth-according to World Health Organization reports, it is 6.6 on every 1000 children. Latest guidelines in therapy and rehabilitation of children with this disorder are related to health of parents, who have central role in treatment processes and rehabilitation of children with this type of problem.

Goal of this research was to determine differences in the quality of life and self-perception of health among parents of children with pervasive development disorder and parents of children with typical development. In research was used Questionnaire for subjective assessment of health status SF-36 by Ware and associates from 2000, that has nine dimensions which make for health status profile. This research involved 15 married couples, 30 parents of children with pervasive development disorder, and 30 married couples, 60 parents of children with typical development, preschool and school age, up to 5th grade.

Results received by multi-variable analysis of variance show that parents of children with developmental disorders have statistically significantly lower self-assessment of health in comparison to control group. This research can serve as a start point for future research about parents of children with pervasive

development disorders, about their needs and difficulties they encounter, and results got in this and possible future studies could be used for constant improvement of this vulnerable part of population.

Keywords: pervasive development disorder, quality of life, self-perception of health, treatment and rehabilitation

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### Senzitivnost na simptome anksioznosti – kvantitet ili kvalitet?

Senzitivnost na simptome anksioznosti (AS) je konstrukt kojim se opisuje strah koji osobe mogu doživljavati povodom sopstvenih manifestacija anksioznog stanja, a kao posledica uverenja da će ove manifestacije imati štetan uticaj na somatsko, psihološko ili socijalno funkcionisanje što dovodi do pojačavanja simptoma. Novija istraživanja sugerišu kategorijalnost AS, odnosno da je reč o dvema kategorijama koje se kvalitativno razlikuju i od kojih jedna podrazumeva adaptivnu formu AS, a druga visoko rizičnu AS. Cilj našeg istraživanja je da se ispita da li osobe sa izraženom AS postižu značajno više skorove na simptomatskim merama u odnosu na osobe sa adaptivnim nivoom AS, kao i da li postoje određeni dispozicioni činioci koji mogu biti diskriminativni za ove dve kategorije. U istraživanju su učestvovala 182 studenta (86.3% ženskog pola) prosečne starosti  $AS = 19.87$ ,  $SD = 0.97$ . Kao mera AS, primenjen je Indeks anksiozne osetljivosti-3, odnosno subskale Zabrinutost za fiziološke simptome i Zabrinutost za kognitivno funkcionisanje. Kao mera dispozicionih činilaca, primenjen je Upitnik za procenu osetljivosti na potkrepljenje, sa subskalama Bihejvioralna inhibicija (BIS), Bihejvioralna aktivacija, Bežanje, Borba i Blokiranje, dok su simptomatske mere depresivnosti i anksioznih poremećaja prikupljene Upitnikom za skrining psihijatrijskih dijagnoza. Za formiranje grupa primenjen je metod koji predlažu Prečer i sar. (Precher et al., 2005), odnosno prvu grupu čini 25% ispitanika sa najnižim skorovima, a drugu 25% ispitanika sa najvišim skorovima. Kako bi se testirale razlike među navedenim grupama primenjen je t – test za nezavisne uzorke. Dobijeni rezultati ukazuju na postojanje značajno većeg broja simptoma depresivnosti, opsesivno-kompulsivnog poremećaja, paničnog poremećaja, agorafobije, socijalne fobije u kategoriji sa

visoko rizičnim AS (sve razlike su značajne na nivou  $p < .01$ ). Takođe, rezultati ukazuju da ispitanici iz ove kategorije postižu značajno više skorove na dimenzijama BIS ( $t(79.209) = -4.36, p < .01$ ), Blokiranje ( $t(88) = -4.61, p < .01$ ) i Bežanje ( $t(88) = -2.62, p < .01$ )

Senzitivnost na anksioznost generalno predstavlja faktor vulnerabilnosti za anksiozne i depresivne poremećaje. Usmeravanjem na simptome anksioznosti osobe te simptome još više intenziviraju jer se usmeravaju na procese koji su inače automatizovani. BIS podrazumeva sklonost ka negativnom afektu i negativnoj anticipaciji te može predstavljati dispozicionu sklonost da se na specifičan način elaboriraju manifestacije anksioznosti, drugim rečima može ležati u osnovi uverenja o štetnosti anksioznosti. Osoba sa istaknutom AS procenjuje da će se ta štetnost odraziti u vidu neke disfunkcije koja se ne može izbeći. Prema reformulisanoj Teoriji osetljivost na potkrepljenje, u zavisnosti od procene da li je anticipiranu opasnost moguće izbeći ili ne, osoba će reagovati bežanjem ili blokiranjem, što može objasniti dobijene razlike između grupa.

Rad je nastao u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije (ON179006). Standardizaciju korišćenih instrumenata na srpskom jeziku finansijski je pomogao Pokrajinski sekretarijat za nauku i tehnološki razvoj AP Vojvodine RS (projekat broj 114–451–1647/2011–01).

*Ključne reči:* Senzitivnost na anksioznost, emocionalni poremećaji, BIS, Blokiranje, Bežanje

### Sensitivity to anxiety symptoms – quantity or quality?

Anxiety Sensitivity (AS) is a construct that is used to describe the fear which people can experience regarding their own manifestations of an anxiety state. The fear is based on a set of beliefs that these manifestations will have deleterious effects on somatic, psychological, or social functioning, which leads to intensification of symptoms. Recent studies suggest that AS has a categorical nature, namely that there are two, qualitatively different categories: adaptive and high risk. The aim of our research was to investigate whether individuals with pronounced AS had significantly higher scores on symptomatic measures in relation to persons with adaptive levels of AS, as well as whether there were certain dispositional factors that may be discriminatory for these two categories. The sample consisted of 182 students (86.3 % female;  $M_{age} = 19.87, SD = 0.97$ ). As a measure of AS, the Anxiety Sensitivity Index – 3 was applied, precisely the Physical Concerns and Cognitive

Concerns subscales. The Reinforcement Sensitivity Questionnaire was applied as a measure of dispositional factors with the following subscales: Behavioral Inhibition (BIS), Behavioral Activation, Flight, Fight and Freeze, while the symptoms of depression and anxiety were measured by the Psychiatric Diagnostic Screening Questionnaire. To form categories, we used the method proposed by Preacher et al., respectively the first group consisted of 25% of those with the lowest scores and the other 25% of those with the highest scores. The differences among categories were tested by t-test for independent samples. The results indicate the existence of a significant number of symptoms of depression, obsessive-compulsive disorder, panic disorder, agoraphobia, social phobia and in the category of the high-risk AS (all differences were significant at  $p < .01$ ). The results also indicate that the respondents in this category had significantly higher scores on the dimensions BIS ( $t(79, 209) = -4.36, p < .01$ ), Freeze ( $t(88) = -4.61, p < .01$ ) and Flight ( $t(88) = -2.62, p < .01$ ). Overall, AS is a vulnerability factor for anxiety and depressive symptoms/disorders. Focusing on the symptoms of anxiety people tend to intensify them because they are focused on the processes that are normally unconscious and automated. BIS itself is a vulnerability factor for emotional disorders. Given that BIS implies a tendency towards negative affect and negative anticipation, it may represent a dispositional tendency to elaborate manifestations of anxiety in a specific way, supporting beliefs about the harmfulness of anxiety. People with pronounced AS tend to believe that anxiety can produce some kind of unavoidable dysfunction. According to the Reinforcement Sensitivity theory, depending on the assessment whether the anticipated danger can be avoided or not, the person will react with flight or freezing behaviour, which may explain the significant differences between the groups.

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**Keywords:** The sensitivity to anxiety, emotional disorders, BIS, Freeze, Flight

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## Sticanje i razvoj kompetenci geštalt psihoterapeuta

Problem kvaliteta psihoterapijske prakse i kompetenci psihoterapeuta je predmet mnogih polemika i izaziva podeljene stavove. Istraživanja su potvrdila da je psihoterapija delotvorna, a šta čini kompetentnog psihoterapeuta i kako se kompetentnost postiže je još predmet mnogih dilema. Ovo istraživanje je imalo za cilj da proveriti koje načine edukanti iz geštalt psihoterapije i iskusni geštalt terapeuti smatraju delotvornim u procesu dosezanja i razvijanja psihoterapijskih kompetenci i šta veruju da te načine čini delotvornim. Odlučili smo se za kvalitativno istraživanje fenomenološkog tipa i analizu narativa, fokusirajući se na prepoznavanje načina sticanja i razvoja kompetenci sa osnovnim pitanjima: "Šta čini kompetentnog psihoterapeuta?", "Kako teče razvojni put sticanja psihoterapijskih kompetenci?", "Koji načini sticanja kompetenci su delotvorni iz vašeg iskustva", "Kako navedeni načini doprinose kompetencama?".

Istraživanje je izvedeno na četiri fokus grupe, ukupno 43 ispitanice prosečnog uzrasta 37.6 godina. Uzorak je prigodan, istraživanje je obavljeno u 4 već postoje edukative i supervizijske grupe veličine 9 – 12 članova. Fokus grupe je vodio nezavisni ispitivač, bez prisustva grupnih trenera i supervizora. Kao delotvorni načini za sticanje kompetenci prepoznaju se, pre svega, rad na sebi i prorada ličnih iskustava kroz individualnu i grupnu psihoterapiju, zatim supervizija i na kraju teorijska predavanja, izučavanje literature i posete kongresima. Samo u jednoj grupi iskusnih terapeuta jespomenuto učešće u istraživanjima i saradnja sa profesionalcima iz drugih struka. Vodjenje administracije nije spomenuto ni u jednoj grupi ispitanika iako je od strane strukovnih udruženja prepoznato kao jedan od važnijih načina sticanja i razvoja psihoterapijskih kompetenci. U sržnim domenima odgovora na pitanje kako pojedinačni načini doprinose sticanju i razvoju psihoterapijskih kompetenci, kada je u pitanju individualna terapija, se navode svesnost o sebi, razvoj sposobnosti da se prepoznaju sopstveni načini kreiranja kontakta, prepoznavanje sadržaja koji utiču na fenomene transfera i kontratransfera i učenje kroz lično iskustvo klijenta. Kada je u pitanju supervizija, sržni domeni se tiču psihoterapijskih tehnika i intervencija, dijagnostike,

ugovaranja, etike i ponovo prepoznavanja fenomena transfera i kontratransfera. Teorijska predavanja i učešće na stručnim skupovima se povezuju sa proširivanjem teorijskih znanja koja nemaju mnogo veze sa praksom. Učešće u istraživanjima se povezuje sa validacijom struke a saradnja sa profesionalcima iz drugih struka sa metapozicioniranjem.

Rezultati su u duhu humanistički egzistencijalno orjentisanih terapija, u skladu sa rezultatima postojećih istraživanja i kriterijumima profesionalnih organizacija. Takodje, rezultati nam sugerišu potrebu za dodatnim razvojem svesnosti o značaju i širini pojma kompetenci psihoterapeuta i potrebu za ojačavanjem istraživačkih kapaciteta u oblasti psihoterapije i supervizije.

*Ključne reči:* psihoterapija, kompetence, razvoj, kvalitativno

### Acquiring and developing competencies of gestalt psychotherapist

The problem of the quality of the practice and competencies in psychotherapy is the subject of controversy and causes divided attitudes. Studies have confirmed that psychotherapy is effective but questions what makes a competent therapist and how this competence is achieved are still subjects of many dilemmas. This study was aimed to examine what ways students of gestalt psychotherapy and experienced gestalt therapists consider effective in the process of reaching and developing psychotherapy competency. Also, the aim was to explore how the recognized ways contribute to this process. We decided to choose a qualitative, phenomenological type of research and the analysis of narratives, focusing on the exploratory nature of this study. Fundamental questions were: "What makes a competent therapist?", "What are, from your experience, effective ways of acquiring competencies?", "How particular way contributes to competency of psychotherapist?"

The study was conducted at four focus groups, a total of 43 respondents, mean age 37.6 years. The sample is convenient; research was done in 4 already existing educational and supervision groups, size 9 -12 members. The focus groups were led by an independent examiner, without the presence of group trainers and supervisors. As an effective way individual and group psychotherapy were placed first, supervision came second and theoretical lectures, literature and participation on congresses were at the end. Only one group of experienced therapists mentioned participation in researches and cooperation with professionals from other fields. Conducting the administration was not mentioned in either group



although it is recognized as one of the ways of acquiring and developing psychotherapy competences by professional associations. When it comes to individual therapy, the core domain refers to self-awareness, development of the ability to recognize ways of creating contact, identification of the content that influence the phenomena of transference and counter transference and learning through experience of being the client. When it comes to supervision, core domain consists of techniques and interventions, diagnostics, contracting, ethics and recognition of the phenomenon of transference and counter transference. Lectures and participation in conferences are associated with expanding theoretical knowledge that has little connection with practice. Participation in the research was associated with the validation of profession, cooperation with professionals from other fields with acquiring meta position.

The results are in the spirit of humanistic and existential oriented therapies, in accordance with the results of existing researches and criteria of professional organizations. Results suggest the need for further development of the awareness of the importance and scope of competences in psychotherapy and the need for strengthening research capacities in the field of psychotherapy and supervision.

*Keywords:* psychotherapy, competence, development, qualitative

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### Subjektivna kvaliteta života osoba s invaliditetom

Cilj ovog istraživanja bio je multidimenzionalno ispitati subjektivnu kvalitetu života osoba s različitim vrstama tjelesnog invaliditeta. Istraživanjem su obuhvaćene tri skupine ispitanika: osobe s oštećenjem sluha (N = 157), vida (N = 142) jer su to česte vrste oštećenja senzornih funkcija i osobe s neuromuskularnim bolestima (N = 87) da bi se istražilo postojanje kvantitativne i kvalitativne razlike u odnosu na različite vrste invaliditeta te da se ne može govoriti o kvaliteti života osoba s invaliditetom kao homogene skupine nego da je potrebno razmatrati navedenu problematiku u odnosu na vrstu oštećenja.

Kako bi se ispitala subjektivna kvaliteta života, korišten je Indeks osobne kvalitete života za odrasle (Personal well-being indeks). Upitnik se sastoji od 7 subskala samoprocjene zadovoljstva vlastitim životom na 7 područja: životni standard, osobno zdravlje, životno postignuće, odnosi s bližnjima, osjećaj sigurnosti, pripadnost zajednici i sigurnost u budućnost. Odgovori se daju na Likertovoj skali od 11 stupnjeva pri čemu 0 označava potpuno odsustvo zadovoljstva, a 10 potpuno zadovoljstvo tim područjem. Ukupni indeks osobne kvalitete života izračunava se kao aritmetička sredina rezultata na navedenih sedam skala.

Rezultati pokazuju da postoje statistički značajne razlike u subjektivnoj kvaliteti života među ispitivanim skupinama. Najviše vrijednosti indeksa nalaze se kod slijepih i slabovidnih osoba koja je i u okviru teorijski očekivanog normativnog raspona za svjetsku populaciju od 60 do 80% skalnog maksimuma (%SM). Značajno niže vrijednosti imaju osobe s oštećenjem sluha (gluhoca i naglušost) i s neuromuskularnim bolestima. Nije utvrđena statistički značajna razlika između skupine s oštećenjem sluha i s neuromuskularnim bolestima. Rezultati ukazuju da postojanje invaliditeta ne mora nužno dovesti do smanjenja kvalitete života. Vrsta oštećenja je jedan od brojnih faktora koji utječu na ukupnu kvalitetu života pri čemu različite vrste invaliditeta na različit način utječu na psihičko, fizičko i socijalno blagostanje. Navedeno treba imati u vidu prilikom kreiranja Nacionalne strategije za osobe s invaliditetom.

*Ključne reči:* subjektivna kvaliteta života, invaliditet

### Subjective quality of life among people with disability

The aim of this research was to examine the subjective quality of life among people with various types of disabilities; people with hearing impairment (N = 157) and visual impairment (N = 142), because this was relatively frequent sensory impairment in population; and people with neuromuscular diseases (N = 87) in order to explore quantitative and qualitative difference in the quality of life in people with various types of disability. One cannot speak about the quality of life of people with disability in general, but in relation to specific disability only.

In order to examine subjective quality of life Personal Wellbeing Index (PWI) was used. The PWI contains seven subscales, in which person has to evaluate satisfaction with life in seven domains: standard of living; health; achievements in life; close relationships; safety; community-connectedness; and future security. Subjects respond on an 11-point Likert scale, where "0" indicates a complete lack of

satisfaction, while 10 means "completely satisfied" with that domain. The mean value of the seven domain scores derived from the PWI constitutes a measure of Subjective well-being: Personal Wellbeing Index.

The results have shown statistically significant differences in subjective quality of life among the examined groups. The highest scores of the Index have been found among blind and partially sighted people. The results thereof are within the theoretically expected normative range for world population from 60 to 80% of the scale maximum (%SM). Significantly lower values have been found among people with hearing impairment (deaf and hard hearing) and among people with neuromuscular diseases. No statistically significant difference have been found between the groups with hearing impairment and neuromuscular disorders. Results indicate that disability itself does not necessarily result in a lower quality of life. The type of disability is one of the many factors that affect the overall quality of life, while various types of disability influence the mental, physical and social well-being in different ways. Bearing all the aforementioned in mind, the National strategy for people with disability should be further amended.

Keywords: subjective quality of life, disability

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### Uloga afektivne regulacije u relaciji pozitivnog afekta i reakciji na stresne životne događaje

Model proširenja i izgradnje (Fredrikson, 2001) sugerira da pozitivni afekat ostvaruje svoj uticaj na porast zadovoljstva životom i smanjenje generalne uznemirenosti kako direktno, tako i modifikujući reakciju osobe na stresne životne događaje putem usavršavanja adaptivnog odgovora na njih.

Cilj ovog longitudinalnog istraživanja bila je provera medijacione uloge stilova afektivne regulacije u relaciji pozitivnog afekta sa zadovoljstvom životom i opštom uznemirenošću u kontekstu stresnih životnih događaja. Na uzorku od 296 studenata Univerziteta u Novom Sadu (81.6% ženskog pola, prosečne starosti 21 godinu) primenjen je Srpski inventar afekta baziran na PANAS-X. Nakon šest meseci

primenjen je Inventar životnih događaja prilagođen studentskoj populaciji i Upitnik afektivnih stilova, a Skala zadovoljstva životom i Skala depresivnosti, anksioznosti i stresa - 21 nakon godinu dana.

Nizom linearnih regresionih analiza (SPSS 22.0) ustanovljeno je da od stilova afektivne regulacije preduslove za medijacione efekte na kriterijume zadovoljstva životom i opšte uznemirenosti zadovoljavaju Prilagođavanje i Tolerisanje, dok Prikrivanje ne ostvaruje značajnu prediktivnu moć na kriterijume. Rezultati Sobelovih testova sugerišu značajan medijacioni efekat kako stila Prilagođavanje u relaciji pozitivnog afekta sa zadovoljstvom životom ( $z = 2.91$ ;  $p < .00$ ) i uznemirenošću ( $-3.20$ ;  $p < .00$ ), tako i stila Tolerisanja sa zadovoljstvom životom ( $z = 3.61$ ;  $p < .00$ ) i uznemirenošću ( $-3.79$ ;  $p < .00$ ) u istim relacijama. Međutim u ponovljenim analizama na dva poduzorka nastala podelom uzorka po modalnoj vrednosti učestalosti životnih događaja ( $Mod = 2$ ), dobijeni rezultati sugerišu da se gopreopisane medijacione relacije odnose samo na poduzorak ispitanika koji je doživeo 2 ili manje životnih događaja u periodu od 6 meseci pre centralnog merenja ( $N = 153$ ; 51.7%). Na poduzorku sa više negativnih životnih događaja u skorašnjem iskustvu ( $N = 143$ ; 48.3%) te relacije nisu vidljive, što aktualizuje pitanje moderacionog efekta broja životnih događaja na postojanost medijacionih uloga stilova afektivne regulacije u relaciji pozitivnog afekta sa uznemirenošću i zadovoljstvom životom.

Dobijeni rezultati dovode u pitanje model proširenja i izgradnje (Fredrikson, 2001), sugerišući njegovu primenljivost samo u samo u slučaju malog broja negativnih životnih događaja, dok sa porastom njihovog broja očekivane relacije prestaju biti vidljive u skladu sa teorijskim pretpostavkama modela.

Rad je nastao u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije (ON179006).

*Ključne reči:* afektivan regulacija , pozitivan afekat, stresni životni događaji

The role of affective regulation in the relation between positive affect and reaction to stressful life events

The broaden-and-build model (Fredrikson, 2001) suggests that the positive affect increases life satisfaction and reduce general anxiety, both directly and by modifying the reaction of people to stressful life events by developing person's adaptive responses.

The aim of this longitudinal study was to test the mediation role of affective regulation styles in relation of positive affect with life satisfaction and general distress in the context of stressful life events. In a sample of 296 students from the University of Novi Sad (81.6% female, mean age 21), the Serbian affect inventory based on PANAS-X was administered. Six months later we administered The Inventory life events adapted to the student population, and one year later the Affective Styles Questionnaire and The Satisfaction With Life Scale and Depression, Anxiety and Stress Scale - 21.

A series of linear regression analyses (SPSS 22.0) suggested that mediation preconditions for affective regulation styles to the criteria of satisfaction with life and general anxiety were met by Adjusting and Tolerating styles, while Concealing had not achieved a significant predictive power for the criteria. Results of Sobel tests suggested a significant mediating effect of Adjustment in relation to the positive affect life satisfaction ( $z = 2.91, p < .00$ ) and anxiety ( $-3.20; p < .00$ ), as well as Tolerating related to life satisfaction ( $z = 3.61 p < .00$ ) and anxiety ( $-3.79; p < .00$ ) in the same manner. However, the repeated analyses on the two sub-samples created by the division of the sample modal value of the frequency of life events (mode = 2), suggest that mediating relations above described relate only to the sub-sample of respondents who experienced two or less life events over a period of 6 months before the central measurement ( $N = 153; 51.7\%$ ). The sub-sample with more negative life events in the recent experience ( $n = 143; 48.3\%$ ) did not show significant relations, actualizing the question of moderating effect of the number of life events on stability of styles' mediation role in the relation between positive affect with anxiety and life satisfaction.

The results question the broaden-and-build model (Fredrikson, 2001), suggesting its applicability only in the case of a small number of negative life events, while in the case of increase in number of events, the expected relations cease to be visible as the theoretical assumptions of the model would suggest.

This study was supported by Ministry of Education, Science and Technological Development, Republic of Serbia (ON179006).

**Keywords:** affective regulation, positive affect, stressful life events



KOGNITIVNA PSIHOLOGIJA

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## Cognitive advantages of acquiring more than one language – preliminary results

Fluent usage of two languages requires complex cognitive processing, as the two languages potentially compete for cognitive resources. The aim of this study was to determine whether attendance in immersion programs of second language (L2) acquisition has a beneficial effect on executive functions.

A total of 46 children were included in the sample, 24 in the group of second language learners (L2 group) and 22 in the control group. Average age was 97 months. Each child was individually tested in a quiet room within their school. A computerized battery of executive functions consisting of two working memory/updating tasks (the backward digit span task and the counting recall task), two inhibition tasks (the nonverbal Stroop task and the stop-signal task) and two shifting tasks (the local-global and the color-shape task) was administered in a preordered sequence in two testing sessions. Raven's progressive matrices were used to assess fluid intelligence.

The data was analyzed with a multivariate analysis of covariance; participant group (L2 vs. control) was the independent variable, age and intelligence were covariates and executive function tests were dependent variables. Only intelligence was a significant covariate and just in the case of the local-global task ( $F(1,42) = 5.516, p = .024$ ). Significant group differences were observed on both the local-global task and the color-shape task ( $F(1,42) = 5.381, p = .025$  and  $F(1,42) = 10.453, p = .002$ , respectively), indicating better shifting ability of the control group, but not on measures of working memory or inhibition.

Children involved in intensive L2 acquisition show poorer shifting ability than their peers not involved in such programs. A possible interpretation of this result would be that increased demands on shifting that L2 learners are met with in everyday situations may lead to detriments in this domain of executive functioning, at least in the first phases of language acquisition.

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Keywords: second language, language acquisition, executive functions, shifting

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## Derivational suffix frequency effects in the masked-priming task

Study conducted in Italian showed that high-frequency derivational suffixes are processed faster than low-frequency ones. The results of study conducted in Serbian suggests that existence of suffix frequency effects depends on suffix ambiguity. Previous studies used visual lexical decision as an experimental task, and to best of our knowledge this effect has not been investigated in masked-priming task.

The goal of this study was to examine whether derivational suffix frequency effect is present in both (ambiguous/unambiguous) suffixes. Two experiments with two experimental groups were conducted (A1 and A2; B1 and B2). First of all, stimuli were divided into two groups: nouns with unambiguous (A1 and B1) and ambiguous suffixes (A2 and B2). In experiment A1, the stimuli were divided into two subgroups: nouns with unambiguous high-frequency suffixes and those with unambiguous but low-frequency suffixes. As targets (N = 28) were used the pairs of nouns with the same stem but different suffix frequency (e.g. kafić/ kafana), and stems (e.g. kafa) were used as primes. In experiment A2, stimuli were also divided into two subgroups: nouns with ambiguous high-frequency suffixes and ambiguous but low-frequency suffixes. As targets were used (N = 32) the pairs of nouns with the same stem but different suffix frequency (e.g. ljubavnica/



ljubavnik), and as primes were used stems (e.g. ljubav). After the controlling of trial order, word length, lemma frequency, morphological family size of a suffix and random-effects of subjects and stimuli, Linear Mixed-Effects Model revealed that nouns with unambiguous high-frequency suffixes are processed faster ( $\beta = -9.76$ ;  $t(1.482e+01) = -4.17$ ;  $p < .05$ ) than those with unambiguous but low-frequency suffixes. Linear Mixed-Effects Model revealed that there is no difference in processing nouns with high-frequency or low-frequency ambiguous suffixes ( $\beta = .24$ ;  $t(22) = -.09$ ;  $p = .92$ ). In experiments B1 and B2, we used the same stimuli as in previous experiments (A1 and A2). The only variation was the type of prime, everything else was identical. In experiments B1 and B2 as primes were used pseudo-stems, ending with the same suffixes as targets in experiments. After the controlling of same fixed and random effects as in previous experiments (A1 and A2) Linear Mixed-Effects Model revealed that nouns with unambiguous high-frequency suffixes are processed faster ( $\beta = -4.08$ ;  $t(1.683e+01) = -2.44$ ;  $p < .05$ ) than those with unambiguous but low-frequency suffixes. Linear Mixed-Effects Model also revealed that there is no difference in processing nouns with high-frequency or low-frequency ambiguous suffixes ( $\beta = .003$ ;  $t(24) = .06$ ;  $p = .95$ ).

Present results suggests that suffix frequency effects depends on suffixal ambiguity. In both types of experiments, processing of unambiguous nouns is under the influence of the suffix frequency, but this effect is not present on ambiguous suffixes. Obtained results goes in line with previous studies conducted in Serbian.

**Keywords:** suffix frequency, masked-priming task, derivational morphology

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## Screening for prosopagnosia in student population

Visual recognition of faces is crucial for normal functioning in human society. It is a higher visual function, building on more basic feature perception, such as shape or color. However, a percentage of population (2.5%) is born with prosopagnosia, a

compromised ability for face recognition. In our community it is not easy to find such individuals since mass medical examinations (pre-school, driving tests, etc.) do not include higher perceptual functions testing in the case of vision. Hence, we started with a screening test, trying to identify both congenital and acquired prosopagnosiacs in order to create a database for a longitudinal study. In our follow up experiment we tested possible stimuli cues that trigger inferior face recognition.

We screened 256 first year students of Psychology in Novi Sad (56 males, 18 to 23 years). Stimuli used in experiment were 40 photographs of famous people collected from Internet. This was a subset of initial larger set of photographs (100) tested in a pilot study with comparable group of participants (30). This pilot was performed to insure reliable stimuli set. Final 40 stimuli (recognition for particular photograph > 80%) included 20 international and 20 domestic celebrities (out of which 20 in full color/20 black & white, 20 profile/20 front, 20 male/20 female, all counterbalanced). Results revealed a heavily leftward skewed distribution suggesting extremely good facial perception in the majority of participants ( $M = 31.73$ ,  $SD = 6.78$ ,  $Min = 3$ ,  $Max = 40$ ). However, 2.73% of participants recognized less than 4 famous faces.

The experiment (45 participants, students, age 22-24, 18 males) involved in-depth testing of face perception. It included recognition of unknown faces of own or other races, either on original or deteriorated photographs. We used standardized Social Contact Questionnaire and Cambridge Memory Test for Faces. Two factor ANOVA (repeated measures) revealed expected tendency for participant to perform much worse on deteriorated photographs ( $F(1,2) = 447.89$ ,  $p < .001$ ), but more importantly there was a difference on performance depending on the race of the presented faces ( $F(1,2) = 32.37$ ,  $p < .001$ ). This tendency was more pronounced on the deteriorated photographs (interaction:  $F(1,2) = 57.81$ ,  $p < .001$ ).

Our screening test revealed that Serbian population also falls within the prosopagnosia prevalence rate reported in the developed countries (2.5% vs. 2.73% us). The follow up experiment informed us about face processing with greater precision as the more demanding stimuli were used. Again we observed a similar percentage of people struggling with face recognition. However the experiment additionally revealed what kind of image degradation and face identity were unfavorable even for normal processing. Findings such as these might help us understand some basic features of both normal face perception and of prosopagnosia.

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Keywords: face perception, prosopagnosia, vision

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## Individualne razlike u čitalačkom odgovoru: provera strukture i predviđanje ekspertize

Istraživanja koja su se bavila individualnim razlikama među čitaocima književnih dela mahom su to činila deleći ih na eksperte i neeksperte, najčešće prema odseku na kom ispitanik studira. Ipak, javlja se i dimenzionalni pristup individualnim razlikama među čitaocima. Jednu od operacionalizacija predstavlja upitnik LRQ (Literary response questionnaire). Dati upitnik sastoji se od 68 stavki koje se razvrstavaju u sedam komponenti nižeg reda obuhvaćenih dvema komponentama višeg reda: Doživljavanju (obuhvata Uviđanje, Empatiju, Živo zamišljanje, Čitanje radi zadovoljstva i Zainteresovanost za autora) i Doslovnom razumevanju (obuhvata Orijentisanost na radnju, Odbacivanje književnih vrednosti i negativnu Zainteresovanost za autora). Međutim, struktura drugog reda naknadno nije replicirana. Osim toga, upitnik se prvenstveno bavi čitalačkim odgovorima ispitanika, te dobro razlikuje one koji već čitaju, ali čini se da ne pravi fine distinkcije između onih koji to ređe čine. Cilj ovog istraživanja bio je da testira strukturu prevedenog upitnika LRQ i proceni mogućnost predviđanja ekspertize ispitanika na osnovu rezultata na upitniku. Uzorak su činila 733 ispitanika oba pola (79% ženskog), prosečne starosti 24 godine. Među ispitanicima nalazili su se i eksperti koji studiraju književnost ili se profesionalno bave njome (23%). Konfirmativna faktorska analiza pokazala je nezadovoljavajuće mere podesnosti (CFI = 0.74; RMSEA = 0.07; SRMR = 0.07). Analiza glavnih komponenti sa Promax rotacijom, pri čemu je kriterijum za odabir broja komponenti bila paralelna analiza, ukazala je na očekivanu strukturu sa sedam koreliranih dimenzija. Karakteristični korenovi ovih dimenzija kreću se od 2.76 do 5.61 i one zajedno objašnjavaju 45% ukupne varijanse. Pritom su tri stavke isključene jer nisu zasićivale nijednu komponentu, dok četiri

stavke upitnika LRQ ne zasićuju predviđene dimenzije. Dodatna analiza izvršena nad komponentnim skorovima sedam ekstrahovanih dimenzija izdvojila je dve nekorelirane dimenzije višeg reda s karakterističnim korenima 2.34 i 1.24 koje zajedno objašnjavaju 51% varijanse. Prva od dimenzija poklapa se sa dimenzijom Doživljavanje. Druga se, međutim, razlikuje od dimenzije Doslovno razumevanje time što ne uključuje (ne)Zainteresovanost za autora, a uključuje Empatiju. Potom je, kako bi se ispitala mogućnost predviđanja ekspertize ispitanika, izvršena logistička regresija gde su prediktori bili komponentni skorovi ispitanika na dve dimenzije višeg reda upitnika LRQ. Uprkos tome što se obe dimenzije javljaju kao statistički značajni prediktori ekspertize, objašnjena varijansa je vrlo mala (Nagelkerke  $r^2 = .09$ ). Uspešnost klasifikacije se ne razlikuje od prostog pogađanja, već se na osnovu modela predviđa da su svi osim četiri ispitanika zapravo neeksperti. Rezultati dodatno potkrepljuju pretpostavljene probleme upitnika LRQ koji se tiču strukture višeg reda i mogućnosti diskriminacije onih koji ređe ili češće čitaju tj. eksperata ili neekspersata.

*Ključne reči:* LRQ, čitanje, književnost, ekspertiza

### Individual differences in literary response: Dimension structure and expertise predictiveness

Research that studied individual differences in readers of literary texts mainly differentiated between experts and non-experts (usually based on participants' study major). However, a dimensional approach has been developing as well. One such approach is represented by LRQ (Literary Response Questionnaire). The questionnaire consists of 68 items which are divided into seven components. Those seven components are in turn grouped into two higher-order components: Experiencing (which includes Insight, Empathy, Imagery Vividness, Leisure Escape and Concern with Author) and Literal Comprehension (Story-driven Reading, Rejection of Literary Values and negative Concern with Author). This higher-order structure was not replicated in subsequent studies. Also, the questionnaire is focused on literary response of participants, differentiating well between readers, but it seems that it lacks in differentiating between those who read often and those who read rarely (i.e. experts and non-experts). The goal of this study was to test the component structure of LRQ and assess its applicability in predicting participant expertise. Sample consisted of 733 participants (79% female), with mean age of 24 years. The sample included experts (23%): participants whose profession was related to literary texts or students of literature. Confirmatory

factor analysis showed unsatisfactory measures of fit (CFI = 0.74; RMSEA = 0.07; SRMR = 0.07). Principal component analysis with Promax rotation and parallel analysis as criteria for factor retention indicated the expected structure of seven correlated dimensions. Eigenvalues of these dimensions ranged from 2.76 to 5.61 and they explained 45% of total variance. Three items were excluded during the analysis due to low component loadings, and four items loaded a component other than the one expected by the original key. Additional analysis conducted with component scores on the seven initially extracted dimensions yielded two uncorrelated higher-order components. Eigenvalues of these components were 2.34 and 1.24 and they together explained 51% variance of lower-order dimensions. The first dimension is Experiencing. The second is, however, different than Literal Comprehension: it does not include (non)Concern for Author, and it includes Empathy. Afterwards, in order to test the possibility of predicting expertise from scores on LRQ, a logistic regression was conducted. The predictors were participants' component scores on two higher-order components. Although both dimensions were statistically significant predictors of expertise, explained variance was quite small (Nagelkerke  $r^2 = .09$ ). Likewise, classification was not better in comparison to the initial (zero) model, since the model predicts that all except four participants belong to the group of non-experts. The results indicate that higher-order structure of LRQ is unstable and that the questionnaire does poorly when discriminating experts from non-experts.

Keywords: LRQ, reading, literature, expertise

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### Neobični hod Montija Pajtona – procena daljine hodanjem

Pokazano je da se vertikalne daljine opažaju kao veće od horizontalnih i to svojstvo opažene daljine nazivamo anizotropija. Pretpostavka je da anizotropija olakšava izvođenje akcije zbog razlike u napornosti pokreta na različitim pravcima. Pošto je pokret na vertikalnom pravcu naporniji od pokreta na horizontalnom, zbog dejstva gravitacije, izdužavanje prostora u tom smeru može biti signal da se uloži veći

napor u sam pokret što bi olakšalo akciju. Dosadašnji podaci o anizotropiji su dobijeni procenom daljine na osnovu vizuelnih, auditivnih i proprioceptivnih informacija, menjanjem daljine stimulusa prema ili od posmatrača. Međutim, uzev u obzir pretpostavku da je anizotropija posledica odnosa opažanja i akcije, postavlja se pitanje da li bi se isti podaci dobili ukoliko bi se posmatrač kretao ka stimulusu, odnosno ako bi procenjivao daljinu kretanjem do položaja stimulusa. Eksperiment je izveden u sali za fizičko, tako da je 14 ispitanika ujednačavalo udaljenost dva stimulusa na dva pravca, horizontalnom i vertikalnom. Ispitanici bi najpre pogledali stimulus na jednom pravcu, zatim stavili povez preko očiju i hodali ili se penjali merdevinama za istu daljinu na drugom pravcu. Kako bismo sprečili da ispitanici tokom eksperimenta broje korake ili stepenike uveli smo dodatni zadatak da tokom hodanja i penjanja broje unazad, za po tri cifre, od unapred zadatog broja. Tokom hodanja, na horizontalnom pravcu, ispitanici su oko nogu nosili povez čija je dužina bila jednaka razmaku između dva stepenika, čime smo ujednačili dužinu koraka pri hodanju i penjanju. Procenjivane su tri udaljenosti stimulusa, 1m, 1.5m i 2m. Rezultati su pokazali da su statistički značajni glavni efekti pravca ( $F(1,13) = 68.028, p < .01$ ) i daljine stimulusa ( $F(2,26) = 270.283, p < .01$ ), kao i njihova interakcija ( $F(2,26) = 56.549, p < .01$ ). Ispitanici su izjednačavali kraće vertikalne daljine sa horizontalno dužim, što znači da su vertikalne daljine opažali kao veće. Ovakavi nalazi su u skladu sa nalazima ranijih eksperimenata i idu u prilog hipotezi o integraciji gravitacije u perceptivno akcione sheme.

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*Ključne reči:* anizotropija, opažena daljina, pravci posmatranja, perceptivno akcione sheme

### Monty Python's funny walk – distance estimates by walking

It is previously shown that vertical distances are perceived as larger than horizontal ones, which is called perceived distance anisotropy. It is assumed that anisotropy makes action performance easier since motion effort is not the same on different directions. Since motion on vertical direction acquires more effort than motion on horizontal direction, because of the gravity, elongation of space on vertical direction can be a signal to invest more effort in a motion which would make action easier. Previous data on anisotropy are gained by distance judgments based on visual, auditory and proprioceptive information, by changing stimuli distance towards or away from the observer. But, taking into account hypothesis that

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anisotropy is a consequence of perception and action relation, we can ask would we obtain the same data if observer would move towards the stimuli instead, that is, if he would estimate distance by walking until stimuli location. Experiment was done in a gym, in which 14 participants matched distances of two stimuli on two directions, horizontal and vertical. Participants would first look at the stimuli on one direction, then put a blindfold on their eyes and walk or climb on leathers for the same distance on other direction. In order to stop participants from counting their steps or stairs, we added additional task to count backwards, by three, from ahead given number, during walking and climbing. During walking, on horizontal direction, participants used to wear binder around their legs, whose length was equal to distance between two stairs, which made us equalize step length during walking and climbing. Three standard distances were matched, 1m, 1.5m i 2m. Results have shown statistically significant main effects of direction ( $F(1,13) = 68.028, p < .01$ ) and distance ( $F(2,26) = 270.283, p < .01$ ), as well as their interaction ( $F(2,26) = 56.549, p < .01$ ). Participants were matching shorter vertical distances to longer horizontal ones, which means that vertical distances were perceived as longer. These findings are consistent with our previous results, and they are in line with the hypothesis on gravity integration into perception action schemes.

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Keywords: Key words: anisotropy, perceived distance, viewing directions, perception action schemes

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## Struktura subjektivnog doživljaja poezije: razlika između eksperata i neeksperata

Prethodno istraživanje ukazalo je na petofaktorsku strukturu subjektivnog doživljaja poezije, sa faktorima: elegičnost, veselost, vrednost, emotivnost i hermetičnost. Međutim, ono nije vodilo računa o razlikama među ispitanicima i uključivalo je ispitanike različitih predznanja i afiniteta. Cilj ovog istraživanja bilo je poređenje ispitanika koji se profesionalno bave književnošću i onih koji to ne čine. U preliminarnoj fazi, na osnovu navoda 53 studenta književnosti, za grupu eksperata izdvojena su 34 najučestalije navođena prideva kojima se opisuju pesme, dok je 25 najučestalije navođenih prideva od strane 42 studenta psihologije korišćeno za ispitivanje grupe neeksperata. U glavnoj fazi istraživanja učestvovalo je 15 eksperata (pesnika, profesora, kritičara) i 19 neeksperata (takođe fakultetski obrazovani ispitanici, ali koji se ne bave umetnošću ili humanistikom). Kao stimulusi su korišćeni dvadeset kratkih lirskih pesama iz prethodnog istraživanja. Pesme su bile antologijske i birane tako da međusobno budu što raznovrsnije. Ispitanici su na petostepenim skalama Likertovog tipa procenjivali svaku od pesama u pogledu izdvojenog niza prideva. Nad prikupljenim podacima izvršena je eksplorativna faktorska analiza (metoda maksimalne verodostojnosti) sa Promax rotacijom u programu Factor. Kriterijum za odabir broja faktora bila je optimalna implementacija paralelne analize. Kada su u pitanju eksperti, u tri iteracije isključeno je sedam prideva, te je njihov konačni broj u analizi bio 27. Ekstrahovana su četiri faktora koji zajedno objašnjavaju 59% varijanse i čiji se karakteristični korenovi kreću od 2.55 do 4.88, a pouzdanosti od .86 do .92: hermetičnost (nerazumljiva, neobična), pozitivna emotivna valenca (vesela, optimistična), vrednost (zanimljiva, duboka) i emotivnost (emotivna, ljubavna). Kada su u pitanju neeksperti, analiza maksimalne verodostojnosti nije konvergirala, te je upotrebljena eksplorativna faktorska analiza minimalnih rangova. U tri iteracije isključeno je 10 prideva te je njihov konačni broj bio 15. Ekstrahovana su dva faktora



koji zajedno objašnjavaju 50% varijanse. Karakteristični koren za emotivnost (dirljiva, emotivna) iznosio je 3.14, a pouzdanost .88. Karakteristični koren za prijatnost (vesela, umirujuća) iznosio je 3.78, a pouzdanost takođe .88. Rezultati pokazuju da struktura subjektivnog doživljaja nije univerzalna, već da može da zavisi od iskustva koje čitalac ima s poezijom. Kod eksperata je uočena sličnost s rešenjem dobijenim u prethodnom istraživanju, pri čemu su faktori elegičnosti i veselosti spojili u faktor koji smo nazvali pozitivna emotivna valenca. Međutim, kod procena neeksperta nije replicirana prethodna struktura, već je ona nestabilna i nedovoljno jasna. Buduće istraživanje bi trebalo da dodatno rasvetli da li je nastala nestabilnost posledica neadekvatnih pridevskih opisa, različitih od onih kojima su pesme opisali eksperti, ili neeksperti na suštinski različit način doživljavaju lirsku poeziju.

*Ključne reči:* subjektivni doživljaj, poezija, ekspertiza

### Subjective experience of poetry: Differences between expert and non-expert readers

In a previous study, a five-factor structure of subjective experience of poetry has been found. The extracted factors were: Elegiac, Cheerfulness, Value, Emotionality and Hermeticism. However, the sample consisted of participants with varying knowledge and affinity for poetry. The goal of the present study was to compare the structure of subjective experience of poetry in expert and non-expert readers. In the preliminary phase, 34 adjectives were reported as the most descriptive of poetry by 53 literature students, while the same procedure yielded 25 adjectives in 42 students of psychology. These two pools of adjectives were used in the main phase of the study, in which 15 expert (poets, university professors, literary critics) and 19 non-expert readers (university degree holders in disciplines that are not arts or humanities) were examined. The stimuli were comprised of twenty short poems that were used in the previous study. All the poems were listed in poetry anthologies and were selected as to maximize diversity. After reading each of the poems, the participants were asked to rate them with regard to each of the adjectives that were selected in the preliminary phase by their corresponding group (i.e. expert or non-expert). A five-point Likert-type scale was used for this purpose. Collected data was analyzed in Factor software by means of maximum likelihood exploratory factor analysis with Promax rotation. Optimal implementation of parallel analysis was used as factor retention criteria. Seven adjectives were excluded from the expert data after three iterations, resulting in 27

retained adjectives that produced four extracted factors: Hermeticism, Positive emotional valence, Value and Emotionality. Together, they explained 59% of total variance, with eigenvalues ranging from 2.55 to 4.88, and reliability indices from .86 to .92. For the non-expert readers, maximum likelihood approach did not converge, so minimum rank factor analysis was implemented. Ten adjectives were excluded after three iterations, and the retained 15 adjectives yielded a two factor solution, with factors Emotionality and Pleasantness. Together they explained 50% of total variance. Reliability of both factors was .88, and their eigenvalues were 3.14 and 3.78. Obtained results indicate that the structure of subjective experience of poetry might not be universal, depending instead on the experiences the reader had with poetry. The final factor solution for expert readers is similar to that from a previous study, except that Elegiacness and Cheerfulness merged into a single factor which we now call Positive emotional valence. However, the subjective experience of poetry structure in non-experts was importantly different and unstable. Future research should show whether the difference between expert and non-expert readers stemmed from inadequate adjective pool reported by non-experts, or reflects a genuine difference in the way two groups experience poetry.

**Keywords:** subjective experience, poetry, expertise

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## Uticaj pauze u zadatku slobodne reprodukcije na efekat broja čula

U prethodnih nekoliko istraživanja u kojima se ispitivao efekat broja čula na tačnost reprodukcije u paradigmi asocijativnog učenja parova reči, efekat broja čula češće se beležio u zadatku navođene, nego u zadatku slobodne reprodukcije. Zabeleženo je da su se reči koje označavaju pojmove koji se mogu iskusiti većim brojem čula (od tri do pet) tačnije reprodukovale od apstraktnih reči u zadatku navođene reprodukcije. U zadatku slobodne reprodukcije, gde je zadatak ispitanika bio da reprodukuju obe reči koje su im bile prikazane, efekat broja čula nije dostizao nivo značajnosti. S obzirom na to da su neka istraživanja pokazala da je verovatnoća pojavljivanja efekta konkretnosti u slobodnoj reprodukciji veća ako se nakon

perioda izlaganja stimulusa uvede pauza, želeli smo da ispitamo da li će pauza imati efekta na pojavljivanje efekta broja čula.

U istraživanju je učestvovalo 35 polaznika Istraživačke stanice Petnica, od kojih je 15 bilo u grupi koja je imala pauzu, a 20 ih je bilo u grupi koja je odmah reprodukovala prethodno izlagane stimuluse. Da bi se izbeglo dodavanje asocijativne povezanosti kao još jednog faktora (koji postoji u paradigmi asocijativnog učenja parova reči), odlučili smo se za jednostavnu slobodnu reprodukciju. Lista koju su ispitanici učili sastojala se iz 60 reči, od kojih je 20 predstavljalo pojmove koji se mogu iskusiti velikim brojem čula, 20 je predstavljalo pojmove koji se mogu iskusiti malim brojem čula (jednim ili dva), a 20 je predstavljalo apstraktne pojmove. Sve tri grupe reči bile su izjednačene po logaritmu frekvencije, dužini reči i familijarnosti. Dve grupe konkretnih reči bile su ujednačene po ukupnoj konkretnosti, dakle razlikovale su se samo po varijabli broja čula. Svakom ispitaniku su ponaosob bili izlagani stimulusi, pri čemu je nakon izlaganja grupa bez pauze odmah radila slobodnu reprodukciju, dok je druga grupa reprodukciju radila nakon pauze od 10 min, za vreme koje su bili slobodni da rade šta žele. Vreme reprodukcije je bilo ograničeno na pet minuta.

Rezultati su obrađeni split plot analizom, pri čemu je faktor pauze bio ponovljen po stimulusima, dok je faktor broja čula bio neponovljen po stimulusima. Zabeležen je efekat broja čula:  $F(2,57) = 3.60$ ,  $p < .05$ ,  $MSE = 0.037$ , kao i efekat pauze:  $F(1,57) = 19.45$ ,  $p < .001$ ,  $MSE = 0.022$ . Efekta interakcije pauze i broja čula nije bio statistički značajan. Nakon post hoc analize (Tuckey), utvrđeno je da efekat broja čula nije značajan u zadatku bez pauze, dok se u grupi sa pauzom značajne razlike beleže između grupe pojmova koja se može iskusiti sa velikim brojem čula i apstraktnih pojmova.

Rezultati ovog istraživanja su u skladu sa prethodnim nalazima. Moglo bi se reći da uvođenje pauze u zadatak slobodne reprodukcije povećava verovatnoću ispoljavanja efekta broja čula. Drugim rečima, prilikom procesa reprodukcije, ukoliko ona nije neposredna, ispitanici se oslanjaju na čulno specifične mentalne reprezentacije, koje povećavaju verovatnoću tačne reprodukcije reči.

*Ključne reči:* efekat broja čula, slobodna reprodukcija, efekat pauze

## Does the pause in free recall enhance the effect of number of senses

The previous researches showed that the effect of the number of senses did not reach the significance in the free recall tasks in the PAL paradigm. The advantages in the reproduction of concepts that could be experienced through many senses

were only indicated in the cued recall tasks. In order to obtain the effect of the number of senses, we relied on previous studies which showed that the probability of the concreteness effect is larger if subjects had a pause between the learning and the reproduction. In this research, 15 individuals were in a group who was given a pause, and 20 were in a group without a pause, all of them being Petnica Science Center students. To avoid association as an additional factor in the PAL paradigm, a simple free recall was run. The list contained 60 stimuli, 20 of which were concepts that could be experienced through many senses, 20 were concepts that could be experienced through small number of senses (one or two), and 20 represented abstract words. All three groups of words were matched for log frequency, familiarity and word length. Two groups of concrete words were averaged by overall concreteness. One group was performing a recall immediately after the end of stimuli exposure, and the other was given a 10 minutes break prior to the reproduction. The time for the reproduction was limited to five minutes. The data were analyzed with the split-plot analysis. The main effect of the number of senses was observed:  $F(2,57) = 3.60$ ,  $p < .05$ ,  $MSE = 0.037$ , and the main effect of a pause:  $F(1,57) = 19.45$ ,  $p < .001$ ,  $MSE = 0.022$ . The interaction was insignificant. Post hoc analysis (Tuckey) revealed that the effect of number of senses was significant only in the group with a pause, with significant differences between the concepts that could be experienced through many senses and the abstract ones. The results were in accordance with the previous studies. It could be concluded that the modality specific mental images improve the reproduction of concrete words if the reproduction is postponed.

**Keywords:** number of senses effect, effect of pause, free recall

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## Razlike u doživljaju lepote muških i ženskih karikatura lica

Savremena medijska industrija nudi brojne sadržaje u kojima se potencira fizička lepota. Međutim, nije lako odgovoriti na pitanja: Koji su kriterijumi lepote?; Kako se lepota rangira i od čega zavisi? Pristupajući ovom istraživanju postojala je namera da se ispita da li se i kako doživljaj atraktivnosti, maskulinnosti i femininnosti lica

menja u zavisnosti od korekcije stimulusa. U tu svrhu su korišćene slike muških i ženskih lica, od kojih su kreirane karikature variranjem veličine pojedinih delova lica. U istraživanju je učestvovalo 12 studenata Filozofskog fakulteta u Kosovskoj Mitrovici, oba pola, starosti od 18 do 35 godine. Bazični set stimulusa čini po 6 ahromatskih slika muških i ženskih lica sa neutralnim izrazom. Stimulusni material čine originalne slike lica kao i njihove karikature nastale uvećanjem i umanjnjem pojedinačnih delova lica (brade, očiju sa obrvama, nosa, i usta). Zadatak ispitanika je bio da svaku sliku procene na 3 skale (atraktivnosti, maskulnosti i femininsti) opredeljujući se za jednu vrednost od 1 (uopšte) do 7 (veoma). Ispitanicima je data instrukcija da se pri proceni koncentrišu na svoj lični doživljaj stimulusa. Redosled izlaganja stimulusa je randomiziran. Dobijeni rezultati urađene analize ukazuju da statistički značajan efekat pola lica sa slike postoji kod ispitivanja atraktivnosti ( $F = 9.62$ ;  $p = .01$ ), maskulnosti ( $F = 118.33$ ;  $p = .00$ ) i femininosti karikatura ( $F = 73.67$ ;  $p < .00$ ). Efekat dela lica koji se koriguje postoji kod ispitivanja atraktivnosti ( $F = 14.78$ ;  $p = .00$ ) i maskulnosti ( $F = 4.01$ ;  $p < .05$ ). Značajnost interakcije faktora pola lica i deo lica je nađena kod femininosti ( $F = 4.02$ ;  $p < .05$ ), dok je interakcija faktora pola lica i stepena korekcije nađena kod procene atraktivnosti ( $F = 8.59$ ;  $p < .05$ ). Statistički značajna interakcija faktora dela lica i stepena korekcije postoji kod atraktivnosti ( $F = 5.35$ ;  $p < .01$ ), maskulnosti ( $F = 6.18$ ;  $p < .01$ ) i femininosti karikatura ( $F = 7.13$ ;  $p < .01$ ). Postojanje interakcija sva tri faktora utvrđena je kod ispitivanja atraktivnosti ( $F = 8.37$ ;  $p = .00$ ) i femininosti ( $F = 7.54$ ;  $p < .01$ ). Naknadni Šefeovi testovi ukazuju da atraktivnost karikatura muških lica raste umanjnjem brade i nosa, dok kod ženskih karikatura atraktivnost raste umanjnjem nosa i uvećanjem očiju. Na skali maskulnosti skor raste kada su muškim licima umanjene oči, a ženskim kada im je uvećan nos i umanjene oči. Što se tiče femininosti ona kod karikatura muških lica raste umanjnjem nosa, a kod ženskih umanjnjem nosa i uvećanjemočiju. Zaključak koji može da se izvede je da ispitanici poistovećuju atraktivnost i femininost ženskih lica. Što se tiče muških lica, umanjnjem nosa ne samo da raste atraktivnost muških lica, već i njihova femininost. Zajedničko za muška i ženska lica je da njihova maskulnost raste umanjnjem očiju. Dakle, umanjnen nos je nesporno feminine karakteristika, kao što su umanjene oči maskulina karakteristika.

*Ključne reči:* karikature, atraktivnost, maskulnost, femininost

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## Differences in experiencing beauty of male and female portrait caricatures

Modern media industry offers various contents concerned with physical beauty. However, answering the following questions is still a challenge: What are the criteria of beauty? How to rank beauty and what does it depend on? We have approached this research with the intent to question how and whether the experience of the masculine and feminine attractiveness is changed with the change of the stimuli. For that reason, pictures of male and female faces have been used to create caricatures with changeable face parts. Research included twelve students of both sexes, 18 to 35 years old, from the Faculty of Philosophy in Kosovska Mitrovica. We have used six achromatic pictures representing neutral male and female faces. Stimuli material is consisted of original portrait photographs as well as of caricatures made by enlargement and diminution of a certain face parts (chin, eyes and eyebrows, nose and mouths). Examinees were asked to grade photographs on 3 scales (attractiveness, masculinity and femininity), and to choose one value from 1 (none) to 7 (very). Examinees were instructed to concentrate on personal experience of the stimuli. Stimuli exposing was randomized. Gathered results show statistical relevance of the sex to which photographed face belongs in examining attractiveness ( $F = 9.62$ ;  $p < .01$ ), masculinity ( $F = 118.33$ ;  $p < .01$ ) and femininity of the caricatures ( $F = 73.67$ )  $p < .01$ ). Changing certain face parts influences attractiveness ( $F = 14.78$ ;  $p < .01$ ) and masculinity ( $F = 4.01$ ;  $p < .05$ ). Interaction between face gender factor and part of the face factor is important when researching femininity ( $F = 4.02$ ;  $p < .05$ ), while the interaction between face gender factor and the degree of the face correction is found in evaluating attractiveness ( $F = 8.59$ ;  $p < .05$ ). Statistically important interaction among face parts and the degree of the face correction is recorded in attractiveness ( $F = 5.35$ ;  $p < .01$ ), masculinity ( $F = 6.18$ ;  $p < .01$ ) and femininity of the caricatures ( $F = 7.13$ ;  $p < .01$ ). All three factors are interacting during the examination of the attractiveness ( $F = 8.37$ ;  $p < .01$ ) and femininity ( $F = 7.54$ ;  $p < .01$ ). Scheffe's tests show that caricature attractiveness of the male faces rise with the diminution of chin and nose, while female caricatures are more attractive when nose is decreased and eyes enlarged. On the masculinity scale results are rising when male face has smaller eyes and female faces enlarged nose and decreased eyes. Male faces are more feminine with smaller nose, and female faces are more feminine with smaller noses and bigger eyes. Conclusion confirms that examinees identify attractiveness with femininity of the female faces. Concerning males, with the

diminution of the nose their attractiveness and femininity factors rise. Both male and female faces are more masculine with decreased eyes. So, decreasing the nose brings forth feminine characteristics while decreased eyes are masculine characteristics.

*Keywords:* caricatures, attractiveness, masculinity, femininity



METODOLOGIJA PSIHOLOŠKIH ISTRAŽIVANJA



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## An algorithm for canonical and quasicanonical discriminant analysis implemented in KAL data analysis system

Discriminant analysis represents a class of methods founded by Mahalanobis and Fisher. We can differ two main types of discriminant analysis: descriptive discriminant analysis, which is focused on identification of the nature of the differences between multiple groups and predictive discriminant analysis, which is focused on prediction of group membership of the entity, based on the set of predictors. The main aim of descriptive discriminant analysis is implemented through identification of canonical discriminant function which represents linear combination of the measured variables. This linear combination is generated, so the differences between groups are maximized.

Apart from this solution for canonical discriminant analysis, an alternative algorithm is possible. This alternative algorithm views canonical discriminant analysis as a special case of canonical correlation analysis. Based on this algorithm, in 1984 Momirović and Štalec developed quasicanonical discriminant analysis which has similar aims as canonical discriminant analysis. Since this algorithm is based on canonical analysis of covariance, the problem is solved by identification of maximal covariance between quasicanonical functions of the two sets of variables. Likewise, matrix of quasicanonical function coefficients is identified, along with structure and pattern matrixes of quasicanonical functions.

The advantage of quasicanonical discriminant analysis over canonical discriminant analysis is that this method could be used even if there is a high co-linearity within the sets of measured variables. Furthermore, the method is less sensitive to outliers and could be used even if the number of discriminant variables is proportionally larger compared to the sample size. Unlike canonical discriminant analysis, which is implemented in most standard statistical packages (SPSS or SAS), quasicanonical discriminant analysis is not implemented in any standard data analysis package. There is a syntax macro developed for SPSS package, which needs to be externally imported. Since these two analyses are complementary, we find development of algorithm for these two analyses relevant. An algorithm we

developed is integrated in KAL data analysis system (developed by A. Zorić). KAL is the open source and user friendly data analysis system which makes this method easy to use even for non-professionals. The output from the analysis contains all above mentioned identification matrixes necessary for interpretation of results. Additionally, we implemented relation between two analyses, so the results from two analyses could be compared.

*Keywords:* canonical discriminant analysis, quasicanonical discriminant analysis, KAL system, statistical software

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Da li je vaš uzorak selekcionisan? Karakteristike ispitanika koji odustaju u psihološkim istraživanjima

Naučno psihološko istraživanje zahteva formiranje reprezentativnog uzorka, a izazov u ispunjenju tog zadatka može biti odustajanje ispitanika od popunjavanja upitnika. Sve veći broj istraživača koristi elektronske upitnike kako bi obuhvatio što veći deo populacije i brže završio fazu prikupljanja podataka. Prilikom elektronskog popunjavanja upitnika, programi neretko beleže i odgovore ispitanika koji su pre kraja odustali, čime se dobijaju nepotpuni podaci i postavlja pitanje da li je uzorak onih koji nisu odustali reprezentativan za celu populaciju. Ovo istraživanje se bavi pitanjem ko su ispitanici koji odustaju od popunjavanja upitnika, tj. utvrđivanjem sociodemografskih prediktora za odustajanje. Uzorak se sastojao od 275 ispitanika, starosti između 14 i 61 godina, od čega je 148 ženskog pola. Prilikom elektronskog prikupljanja podataka putem programa Qualtrics, izdvojeno je 104 ispitanika koji su odustali i 171 ispitanika koji su do kraja popunili upitnike. Sociodemografske varijable bile su pol, obrazovanje – binarno definisano svrstavanjem ispitanika u grupe po kriterijumu godina školovanja (cut off skor je 12 godina, pri čemu je 190 ispitanika u grupi nižeg obrazovanja), bračni status – definisan svrstavanjem ispitanika u dve grupe, na osnovu toga da li ispitanik ima partnera (107 ispitanika je bez partnera); starost ( $AS = 29.4$ ,  $SD = 7.88$ ) i materijalni status, operacionalizovan samoprocenom ispitanika na petostepenoj skali ( $AS = 3.30$ ,  $SD = .76$ ). Preliminarnim

anaizama (t-test za nezavisne uzorke i hi-kvadrat test) utvrđeno je da ne postoje razlike između ispitanika koji odustaju od popunjavanja upitnika i onih koji ne odustaju za svaku od navedenih varijabli ponaosob. U svrhu provere udruženog efekta prediktorskog seta sačinjenog od sociodemografskih varijabli na odustajanje od popunjavanja psiholoških upitnika sprovedena je binarna logistička regresiona analiza, sa odustajanjem kao zavisnom varijablom. U regresioni model unete su sociodemografske varijable – pol, obrazovanje i bračni status kao kategorijalne varijable, i starost i materijalni status kao kontinuirane varijable. Rezultati su pokazali da ovakav model nije statistički značajan ( $\chi^2(5) = 5.06, p = .41$ ) i da objašnjava između 1.8% ( $R^2$  Koxsa i Snela) i 2.5% varijanse ( $R^2$  Nagelkerkea). Iako se očekuje da od popunjavanja upitnika odustaju osobe sa nižim socioekonomskim statusom i nižim stepenom obrazovanja, pokazalo se da to nije slučaj. Ovi rezultati ukazuju da se predikcija odustajanja ispitanika ne može vršiti na osnovu sociodemografskih varijabli, a njihov doprinos ogleda se u boljem pregledu uzorka i većoj sigurnosti u reprezentativnost uzorka u odnosu na sociodemografske karakteristike populacije koja se ispituje. Formiranje uzorka predstavlja osnovu svakog psihološkog istraživanja bez koje rezultati istraživanja mogu biti upitni ukoliko uzorak nije reprezentativan. Rezultati ovog istraživanja uklanjaju nesigurnosti o reprezentativnosti uzorka po pitanju sociodemografskih varijabli.

*Ključne reči:* selekcija uzorka, reprezentativnost uzorka, psihološka istraživanja, metodologija istraživanja

### Is your sample selected? Characteristics of participants who give up in psychological research

Scientific psychological research requires formation of the sample representative for the whole population, and the participants who do not complete the questionnaires may be a challenge in fulfilling this task. An increasing number of researchers use electronic forms on the Internet during the sample collection, in order to cover as much of the population and complete the phase of data collection quickly as possible. When filling out electronic questionnaire, programs frequently record the responses of the participants who did not complete the questionnaires. This may contribute to incomplete data, which raises the question whether the sample of those who did fill out the questionnaires is a representative one for the entire population. Present research was conducted in order to determine the socio-demographic predictors of participants who do not complete questionnaires in psychological research. The sample consisted of 275 participants

(148 females), aged between 14 and 64 years. Using electronic data collection - the Qualtrics, 104 participants who did not complete the questionnaires and 171 participants who did, were categorized into different groups. Socio-demographic variables were gender, education - defined binary based on years of education (cut off point being 12 years, with 190 participants in lower-education group), marital status - defined binary on the grounds of having a partner (107 participants were not in a relationship); age ( $M = 29.4$ ,  $SD = 7.88$ ) and self-reported financial status ( $M = 3.30$ ,  $SD = .76$ ). Preliminary analyses (t-test for independent samples and chi-square test) showed no significant differences between the two groups of subjects, regarding each individual variable. In order to examine the joint effect of the predictor set composed of socio-demographic variables on the withdrawal from filling out questionnaires, a binary logistic regression analysis was conducted. In the regression model we entered the socio-demographic variables. The results showed that this model is not statistically significant ( $\chi^2(5) = 5.06$ ,  $p = .41$ ) and explains between 1.8% (Cox & Snell  $R^2$ ) and 2.5% of the variance ( $R^2$  Nagelkerke). Although it was expected that people with lower socioeconomic status and less education do not complete the questionnaires that was not the case in this research. These results indicate that participants' quitting could not be explained by socio-demographic variables. The results contribute to a better overview of the sample, and to confidence in the representativeness of the sample in relation to socio-demographic characteristics of the population being tested. The formation of the sample is the basis of any psychological research where research results can be questionable if the sample is not representative. The results of this research ease the uncertainties about the representativeness of the sample in terms of socio-demographic variables.

**Keywords:** sample selection, sample representativeness, psychological research, research methodology

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## Faktorska struktura upitnika namenjenog ispitivanju ranih maladaptivnih šema

Šema terapija je psihoterapijski pristup namenjen tretiranju hroničnih psiholoških poremećaja uz pretpostavku da nastaju usled nepovoljnih iskustava tokom ranog razvoja osobe. Ovakav pristup može da pomogne u radu sa licima lišenim slobode. U osnovi Šema terapije je koncept ranih maladaptivnih šema (RMŠ). Najnovija verzija upitnika (70 ajtema) za ispitivanje postojanja i izraženosti RMŠ obuhvata 18 šema, podeljenih u pet domena, koji mogu biti posmatrani kao faktori drugog reda (Nepripadanje i odbijanje, Oštećenje autonomije i Izvođenja, Oštećenje granica, Usmerenost na druge, Preterana opreznost i inhibicija). Iako autor koncepta RMŠ pretpostavlja postojanje pet domena, nalazi više istraživanja koja su proveravala faktorsku strukturu različitih formi upitnika namenjenih ispitivanju RMŠ upućuju na tri šema domena. Cilj istraživanja je ispitivanje faktorske strukture treće, skraćene verzije upitnika za ispitivanje RMŠ (YSQ – S3) na zatvorskoj populaciji.

Uzorak je činilo 153 lica lišena slobode koja se nalaze u tri Kazneno – popravna zavoda u našoj zemlji, pri čemu je bilo 35 ispitanika ženskog pola i 118 muškog, prosečne starosti 35.65 godina (SD = 9.28). Eksploratornom faktorskom analizom, razmatranjem različitih kriterijuma ekstrakcije poput Gutman Kajzerovog, paralelne analize i Velicerov MAP testa, izdvojena su tri faktora koja objašnjavaju 65.36% ukupne varijanse osnovnog skupa korišćenih varijabli. Prvi faktor u objašnjenju ukupne varijanse učestvuje sa 50.16% i opisuje teškoće u sposobnosti osobe da se odvoji i funkcioniše van dominantnog uticaja drugih. Karakteriše ga zavisnost od drugih ljudi, primarno usled uverenja osobe da jena adekvatna i oštećena, te jenazivan Oštećenje autonomije uz uverenje o ličnoj defektnosti. Drugi faktor objašnjava 9.04% ukupne varijanse i nazvan je Oštećenje granica i traženje priznanja od drugih. Odnosi se na teškoće u poštovanju socijalnih normi, uz doživljaj lične superiornosti koju osobe teže da ostvare kroz pribavljanje pažnje i divljenja od strane drugih ljudi. Preterana opreznost i inhibicija usled straha od napuštanja je naziv trećeg faktora kojim je objašnjeno 4.51% ukupne varijanse. Faktor se odnosi

na rigidnost u mišljenju, uz strog stav prema sebi i zahtev za inhibiranjem sopstvenih emocija. Do ove inhibicije dolazi usled straha osobe da će biti napuštena od strane voljenih osoba, pri čemu će sama biti kriva za to.

Faktorska struktura YSQ-S3 upitnika dobijena u ovom istraživanju je u najvećoj meri korespondentna sa strukturom na koju upućuje prvo istraživanje kom je bio cilj otkrivanje strukture upitnika za ispitivanje RMŠ na našem govornom području. Rezultati pružaju još jednu potvrdu trofaktorske strukture upitnika namenjenih ispitivanju RMŠ.

*Ključne reči:* rane maladaptivne šeme, faktorska analiza, lica lišena slobode

### Factor structure of the questionnaire for examining early maladaptive schemas

Schema therapy is a psychotherapeutic approach for dealing with chronic psychological disorders assuming that they evolve due to having unfavourable experiences during the early stages of one's development. This kind of approach helps in working with people deprived of freedom. Schema therapy is based on the concept of early maladaptive schemas (EMS). The latest version of the questionnaire (70 items) for examining the existence and severity of EMS consists of 18 schemas, divided into five domains, which can be seen as second-order factors (Non-affiliation and rejection, Autonomy and performance damage, Boundaries damage, Focus on others, Over-cautiousness and over-inhibition). Although the author of the EMS concept supposes the existence of five domains, the results of various research dealing with the factor structure of different forms of questionnaires for examining EMS indicate three schema domains. The goal of the research is examining the factor structure of the third, shortened version of the questionnaire for examining EMS (YSQ-S3) on prison populations.

The sample consisted of 153 people deprived of freedom, situated in three correctional facilities in our country, 35 of which were female and 118 male, with the average age of 35,65 years ( $SD = 9,28$ ). By using the exploratory factor analysis and looking into various criteria of extraction such as the Guttman-Kaiser, parallel analysis and Velicer's MAP test, three factors which explain 65,36% of the total variance of the basic group of used variables were subtracted. The first factor participates in the explanation of the total variance with 50,16% and explains the difficulties in a person's ability to individualize and function without the dominant influence of others. It is characterised by dependency on others, primarily due to

the person's belief that he or she is inadequate and damaged, which is why it is called Autonomy damage with the certainty of personal defectivity. The other factor explains 9.04% of the total variance and it is called Boundaries damage and searching for acknowledgment from others. It deals with difficulties in respecting the social norms, with the feeling of personal superiority that the persons tend to achieve by seeking attention and admiration from other people. Over-cautiousness and over-inhibition is the name of the third factor used to explain 4.51% of the total variance. This factor refers to being rigid in reasoning, with a strict attitude towards oneself and inhibiting one's own emotions. This inhibition occurs due to fear a person has from being abandoned by loved ones, due to his or her own mistakes.

Factor structure YSQ-S3 of the questionnaire which was the result of this research mostly corresponds to the structure indicated by the first research, whose goal was discovering the structures of questionnaires for examining EMS on our speaking area. The result gives another confirmation of the three-factor structure of the questionnaire for examining EMS.

Keywords: early maladaptive schemas, factor analysis, people deprived of freedom

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## Provera validnosti dimenzije Upravljanja Impresijom

Upravljanje impresijom predstavlja dimenziju socijalno poželjnog odgovaranja, a koja se odnosi na tendenciju obmanjivanja drugih. U brojnim istraživanjima je pokazano da umesto stila ili seta odgovaranja, ova skala meri crtu ličnosti. Ovaj rad usmeren je na proveru validnosti ove dimenzije kao mere skale socijalno poželjnog odgovaranja ili sa druge strane substancijalne varijable ličnosti. Postavlja se pitanje koju od dimenzija ličnosti ova osobina najviše zamagljuje? Saradljivost se odnosi na osobine prihvatanja, konformiranja, uviđanja i poštovanja. Osobe niskih skorova na ovoj dimenziji karakteriše agresivno ponašanje, kompetitivnost, ali i upravljanje impresijom i sebičnost. U istraživanju je učestvovalo 235 ispitanika kojima su

zadavani upitnici IHEDONICA i BIDR kompjuterskim putem, u dve eksperimentalne situacije: da se prikažu bolje i da se prikažu iskreno. Pokazano je da je u obe situacije postoji znacajna povezanost dimenzije saradljivosti i upravljanja impresijom  $r = .446$ . Regresioni model u kojem upravljanje impresijom predstavlja kriterijum, a pet dimenzija ličnosti prediktore, pokazao je da se kao najznačajniji prediktori ističu se dimenzije saradljivosti i neuroticizma. Analizirana je povezanost domena varijable Saradljivost sa dimenzijom upravljanja impresijom i pokazano je da je najznačajniji prediktor domen manipulacije, čiji je parcijalni doprinos objašnjenju upravljanja impresijom  $.515$ . Ovaj nalaz ukazuje na substancijalni karakter skale socijalne poželjnosti, pre nego na njenu kontrolnu prirodu u ispitivanju ličnosti. Drugim recima, nalaz ovog istraživanja ukazuje na to da Upravljanje impresijom meri crtu ličnosti, Saradljivost. Sa praktične strane ovaj rad ukazuje na rekonceptualizaciju skale BIDR, a sa teorijske strane upućuje na dodatna razmatranja stila ili seta odgovaranja.

*Ključne reči:* upravljanje impresijom, saradljivost

### Investigation of the validity of Impression management

Impression management (IM), one of the dimension of social desirability, represent tendency for manipulate with impression among the others. Numerous studies shown that instead of response set or style, this dimension measure personality trait. The aim of this study was to explore its validity as a scale of social desirability from one and substantial personality dimension from the other side. The question remains is with which personality dimension is IM related and to what extent. Agreeableness is one of the Big Five dimensions, related to the conformism, respectful and acceptance behavior in relation to the others. Persons of moderately to low scores on this dimensions describe aggressive, competitive, selfish, as well as manipulative behavior. In this study 235 Ss HEDONICA and BIRD inventories were computer administrated in the two experimental situations, under the instruction to fake good, and in honest situation. In both, results indicated the relation of impression management and agreeableness (in a range from  $.446$  to  $.613$ ). Regression model for prediction of IM through personality dimensions, indicated that the core of IM dimension (46%) could be explained by Neuroticism and Agreeableness. Analysis of domains of the basic personality dimensions indicated that the greatest partial impact on prediction of IM has Manipulation (the domain of the Agreeableness dimension,  $r = .515$ ). This result is in the line with previously findings indicating to the substantial core of the Impression



management scale. In other words this result indicate that instead of response set or style IM measures facet Manipulation from the Agreeableness domain of the FF model of personality. Therefore it is necessary to reconsider its practical and theoretical usefulness as a control scale.

*Keywords:* impression management and agreeableness

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### Revalidacija skale za procjenu fiksacija libida REKA

Although psychodynamic constructs can be adequately psychometrically operationalized they stay at margins of scientific interest. Personality structures are considered in description of personality while psychodynamic processes remain neglected. Besides, basic personality traits are considered by academically oriented researchers, while in psychotherapeutic work apprehension of personality is primarily based on constructs developed in psychodynamic theories, like psychoanalysis or individual psychology. Bearing this in mind, the purpose of this research is analysis of questionnaire operationalization of libido fixations, based on Freud-Abraham's theory of psychosexual development. The final aim would be development of scale appropriate for basic personality traits consideration.

Research consists of three studies. Psychometric characteristics and structure of libido fixation scale REKA are analyzed in the first one. REKA consist of 40 items with five point Likert scale. They are gathered in oral, anal, urethral and phallic fixation scales. Study was conducted on 1134 respondents (58% women) with average age  $M = 21.25$  ( $SD = 4.50$ ). Scales scores were first analyzed. Results indicate satisfactory psychometric characteristics for all scales, with reliability coefficients in range from .72 to .85. Exploratory factor analysis show that urethral scale items cannot form independent dimension. Instead, they tend to merge with cluster formed by indicators of anal fixation. Through testing models with three and four factors confirmatory factor analysis showed the same.

In second study confirmative factor analysis is administered after urethral scale elimination from REKA questionnaire. Sample consist of 248 respondents (69% women) with average age  $M = 23.86$  ( $SD = 4.21$ ).  $\alpha$  coefficients were in range between .76 to .85. Analysis of latent dimensions indicate more robust factorial structure. Three factors are completely in accordance with oral, anal and phallic fixation concepts.

In third study 148 (69%) respondents were tested. Relationship between libido fixations and basic personality traits were considered. BFI-10, which provides measures of extraversion, agreeableness, conscientiousness, neuroticism and openness, was used in personality traits assessment. Results indicate significant relationship ( $p < .01$ ) between oral fixation and openness (.32), anal fixation and agreeableness (.36), and, phallic fixation and neuroticism (.31), extraversion (.30) and openness (.32).

Overall results suggest that scale REKA works better without indicators of urethral indicators. With oral, anal and phallic fixation scales REKA is quite satisfactory research tool. Finally, Identified relationship between libido fixations and basic personality are compatible to psychoanalytic theory.

*Keywords:* scale REKA, psychometric characteristics, validation



NEGOTIATING SOCIAL IDENTITIES:  
YOUTH FROM SERBIA, MACEDONIA AND BIH

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### Young and social identity perceptions: The case of Tetovo

Republic of Macedonia is an entity described as cultural mosaic, with strong multiethnic and multi-confessional basis, it is a point where the East meets the West, it is well-known for the syntagm of Macedonian salad. But, this society even after 25 year of social transition and 2001 Ohrid Agreement did not achieve to find the way of conclusive peace, stability and social eudaimonia. The diversity is issue that from time to time produces turbulencies, especially at the line of two main identity groups Macedonians-Christian Orthodox and Albanians-Muslim community. So the question is how to fight modern stereotypes and coexist in this multicultural reality, where we historically inherited a very positive formula, millet system, and today cope with that of modern multiculturalism. Another is how alternative identities as to be European, to be inhabitant of a respective city, member of a friendship group etc., can be used in generating more positive perceptions.

This paper is based on a research, survey with 100 young (75 Albanians and 25 Macedonians) from Tetovo, at the age up to 30, majority of them university students, a focus group and a case study, conducted between February to June 2015. Its objective is to give a scientific picture how categories as gender, marriage, family, ethnicity, religion, living place, Balkan, Europe are perceived by the young, all this in favor of using them in producing affirmative actions, more productive societal policies and constructive society-building. Multiple social identities: their complexity and inclusiveness, the correlation of identity variables with SII and SIC are among issues analyzed in this paper. Empirical findings show that young Albanians from Tetovo are family oriented (80% highly important), religiocentric (58%), give high importance to ethnicity (50%). Number on this three values are lower for ethnic Macedonian young from the same city (54.8 %, 12.9%, 9.7%). National dominance was more frequent among Macedonians. National identity merge was more frequent among Macedonians. Cultural contact is assessed as low among Macedonians, while Albanians rate this type of contact on a relatively higher level. Our findings demonstrate that only social identity inclusiveness is

significantly related to societal and political attitudes, but ethnicity should be taken into consideration when this relationship is explored.

*Keywords:* Macedonia, identity, young people, perception(s), ethnicity, religion, complex identities

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### Group essentialism, ethnic identification and outgroup emotions in Bosnia and Herzegovina

Group essentialism can be defined as a set of implicit lay beliefs about the essentiality of one's social identity. The essentialist perception of ethnic, religious and national communities means that the groups are seen as biologically founded or based on deep and unbreakable cultural connections between community members. The function of this set of beliefs may be social, because it enhances a group cohesion, but also the individual, because it provides a sense of existential security and a certain social identity as well. Earlier experimental studies of this and related constructs, found positive correlations between essentialist beliefs and group identification, as well as relations between psychological essentialism and stereotyping tendencies. In the Bosnian-Herzegovinian society, ethnic groups are very salient because they represent the basis of the political group relations. Based on previous research and knowledge of the local context, we expect that this study will show inter-correlations of group essentialism with ethnic identification and intergroup attitudes. We operationalized group essentialism using three item scale to probe beliefs about the malleability of group boundaries of ethnic, religious and national categories. Ethnic identification was measured by assessing the degree of importance of ethnic identification. Outgroup emotions were measured by the feelings thermometer scale. We interviewed 203 respondents of Serbian and Bosniak ethnicity in Bosnia and Herzegovina. The sample was balanced by age, gender and ethnicity. The results show there is a correlation of group essentialism with ethnic identification ( $r = .38, p < .01$ ) and negative emotions toward ethnic outgroups ( $r = -.34, p < .01$ ). Also, there was a correlation between ethnic

identification and negative emotions toward ethnic outgroups ( $r = -.50, p < .01$ ). As we expected, beliefs about group essentiality contribute significantly to the prediction of the importance of ethnic identification and outgroup emotions. We argue these findings in the key of the social identity theory. The instability and uncertainty of the social context create the conditions in which people identify strongly with the politically and existentially salient groups, whereas the political constitution makes ethnic groups in Bosnia and Herzegovina really important. Furthermore, these groups are politically opposed, which leads to psychological and social distancing of the members. The effect of social distancing is an amplified process of socio-psychological construction of group differences, leading to essentialist beliefs.

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### Social identity complexity and inclusiveness as predictors of societal attitudes – minority and majority perspectives

Being a part of a majority or minority group entails different perspectives on societal issues. These differences could stem from construal of multiple social identities. Two constructs seek to tap into how complex relations between social groups are reflected in individual perceptions. Social identity complexity (SIC) refers to the degree of overlap of cross-cutting memberships, while social identity inclusiveness (SII) refers to the number of people a person perceives as in-groupers. The aim of the study is to explore relations between social identity parameters and a range of societal attitudes in ethnic majority and minority group members. The sample included a total of 196 young (20-30 years of age) people either from Belgrade or from Novi Pazar, of which 102 self-identified as Serbian and 94 as Bosniak in ethnicity. We derived their average SIC measure from questions that asked about the perceived overlap in membership between pairs of three groups (ethnic, religious, national), and SII as a number of fictional persons classified as in-groups ("us") in a card sorting task presenting them persons with

identities created by crossing the three categories. We also measured a range of societal and political attitudes (social dominance orientation, perceived group equality, attitude towards discrimination, trust in institutions, activism/cynicism). In the ethnic majority group (Serbian), SIC did not predict any of the attitudes, while inclusiveness was a negative predictor of social dominance orientation ( $\beta = -.25, p = .01$ ) and trust in state institutions ( $\beta = -.22, p = .03$ ). In the ethnic minority group (Bosniak), complexity predicted less perceived equality of the ethnic groups ( $\beta = -.25, p = .01$ ) and more positive attitudes towards anti-discrimination policy ( $\beta = .17, p = .09$ ). Inclusiveness predicted less trust in state institutions ( $\beta = -.19, p = .07$ ) as well as activism (as opposed to cynicism,  $\beta = .16, p = .11$ ). Our findings suggest that social identity parameters proved as significant predictors of societal and political attitudes, explaining around 20% of variance, with complexity and inclusiveness showing distinct patterns of relations with attitudinal measures. Individual variations in social identity parameters were more predictive for attitudes among minority group members. The issues of multiple identity construal appear to play a more central role for minority groups members' relation towards the society, affecting the more immediate perceptions of the inter-group relations with the majority group but also the more general attitudes towards other groups and the state. In devising policy affecting minority groups an effort should therefore be made to specifically consider the identity-related implications.

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### Social Identity Complexity and Inclusiveness in ethnic majority and minority ethnic groups: The case of Bosnia and Herzegovina

In post-conflict societies such as Bosnia and Herzegovina, exclusive understandings of one's own but also of other ethnic groups can be a very detrimental socio-political condition impeding restoration of intergroup relations. Investigation of types and levels of identities prevalent in such societies deems important. More complex and inclusive identity is expected to be linked to more inclusive societies. In this study conducted in Bosnia and Herzegovina (Sarajevo) we report

data which included minority (Serbs from Sarajevo) and majority (Bosniaks from Sarajevo) ethnic members which investigated the complexity and inclusiveness of their social identities. t-test for independent samples (28 Serbs and 62 Bosniaks from the city of Sarajevo) indicate significant differences in the complexity of social identity but not inclusiveness between majority (Bosniaks) and minority (Serbs) groups. Serbs as an ethnic minority living in Sarajevo report higher levels of complexity ( $M = 5.63$ ,  $SD = 1.53$ ) in comparison to the majority ethnic group (Bosniaks:  $M = 7.17$ ,  $SD = 1.46$ ). The same direction of differences is found on ethnic social identity dimension. No significant differences were established on religious or national level of complexity as well as social identity inclusiveness. In terms of the relationship between different levels of identification and identity complexity and inclusiveness respectively, regression analyses indicate that social identity complexity cannot be significantly predicted by any identification measures both for minority and majority group members. In predicting social identity inclusiveness, ethnic identification emerged as the only significant and negative predictor for both minority and majority group members.

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### Social identity complexity and its correlates among Macedonian and Albanian young adults

Social identity complexity denotes the degree of perceived overlap between groups of which an individual is member at the same time. This study aimed to extend empirical evidence about this relatively new concept and its correlates in multiethnic Macedonian context. Namely, it was examined how simplicity/complexity of social identity is related to group identification and feelings towards ingroup/outgroup. Participants were 131 young adults (76 Macedonians (Orthodox Christians) and 55 Albanians (Muslims), aged between 20-30 years). All of them are citizens of Macedonia and live in Skopje. Less complex social identity among Macedonians was related to more positive feelings towards ethnic and religious ingroup and less complex social identity among Albanians was



## NEGOTIATING SOCIAL IDENTITIES: YOUTH FROM SERBIA, MACEDONIA AND BIH

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associated to less positive feelings towards ethnic and religious outgroup ( $F(1,127) = 13.88, p < .001, \eta^2 = .099$  and  $F(1,127) = 6.76, p < .05, \eta^2 = .051$ , respectively). Albanians compared to Macedonians demonstrated stronger identification with their ethnic ( $F(1,127) = 11.17, p < .01, \eta^2 = .081$ ) and religious group ( $F(1,127) = 42.06, p < .001, \eta^2 = .129$ ), gender ( $F(1,127) = 6.14, p < .05, \eta^2 = .046$ ) and family ( $F(1,127) = 5.07, p < .05, \eta^2 = .038$ ). Expectedly, Albanians reported more positive feelings toward Muslims ( $F(1,127) = 150.86, p < .001, \eta^2 = .543$ ), Albanians ( $F(1,127) = 166.43, p < .001, \eta^2 = .567$ ), Bosniaks ( $F(1,127) = 15.52, p < .001, \eta^2 = .109$ ) and citizens of Albania ( $F(1,127) = 22.64, p < .001, \eta^2 = .151$ ) and more negative feelings toward Serbs ( $F(1,127) = 48.14, p < .001, \eta^2 = .275$ ), while Macedonias reported more positive feelings toward Macedonian citizens ( $F(1,127) = 7.73, p < .15, \eta^2 = .057$ ), Orthodox Christians ( $F(1,127) = 22.49, p < .001, \eta^2 = .150$ ) and Macedonians as ethnic group ( $F(1,127) = 15.68, p < .001, \eta^2 = .110$ ). The results are further discussed in terms of the role of multiple social identities in intergroup relations, especially in multiethnic communities.

*Keywords:* social identity complexity, group identification, young adults



PEDAGOŠKA PSIHOLOGIJA

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## Knowledge of the meaning of the foreign words in the Croatian language in relation to the meta-language of the teaching profession

The aim of this study was to explore the relationships between knowledge of the meaning of the specific foreign words in the Croatian language, particularly those words that refer to the knowledge of meta-language of the future teachers, and their foreign language skills, with the self-assessments of their own general and domain specific intellectual abilities (verbal, numerical and spatial), as well as some other measures. The use of the extensive vocabulary in everyday communication requires a true understanding of the nuances of the word meanings depending on the situation in which a person finds themselves, because the use of vocabulary does not consist of simply reciting the definitions of the words, but implies the appropriate usage of memorised linguistic information in each given situation. The proper use of words in everyday communication reflects the developed linguistic and communicative competence and communication skills, of special importance to the educational staff. The study participants were the students of the fourth and the fifth and final year of Teacher studies in Osijek. Instruments used included VerT (Zarevski, Matešić, & Matešić, 2014), and for this study specifically developed set of questions. The results showed that the active vocabulary span correlated significantly with the self-assessed verbal intellectual abilities,  $r_{s(99)} = .30$ ,  $p = .002$ , and only with the number of correctly defined words thematically bound to the Humanities,  $r_{s(99)} = .38$ ,  $p < .001$ . This implied that the meta-language of the students leaned more towards the Humanities, than to the Natural or the Social sciences (i.e., in line with the higher level of proficiency in language, and lower in mathematics required for enrollment, with no social sciences required). The results of this study have implications for the development of the balanced educational meta-language dictionary covering all the basic educational areas of the general compulsory education outlined in the national curriculum framework.

**Keywords:** vocabulary span, vocational meta-language, linguistic and communicative competence

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## Kognitivne prednosti korišćenja Interneta u nastavi geografije iz ugla učenika

Cilj ovog rada je ispitivanje da li je upotreba Interneta u nastavi prilagođena učenicima i da li oni prepoznaju Internet kao korisnu alatku prilikom školskog učenja. Ispitivano je učeničko opažanje kognitivnih prednosti korišćenja Interneta u nastavi geografije. S tim u vezi je razmatrano nekoliko aspekata kognicije: memorija, učenje, mentalne sheme, obrada i rasuđivanje. Takođe su istraženi uticaji pola, škole (razred i vrsta škole kombinovano) i posedovanje računara kod kuće. Upitnik je popunilo 1563 učenika u osnovnim i srednjim školama širom Srbije. Rezultati pokazuju da su procene većine ispitivanih kognitivnih prednosti upotrebe Interneta u nastavi geografije ispodprosečne, osim za aspekt učenje ( $M = 4.04$ ). Generalnim linearnim modelovanjem dobijen je statistički značajan uticaj dva glavna efekta – pol i škola, kao i statistički značajan uticaj dve interakcije – posedovanje računara sa školom i pol sa školom na opažene kognitivne prednosti upotrebe Interneta u nastavi geografije. Izdvojene su sledeće grupe koje procenjuju veće kognitivne prednosti korišćenja Interneta u nastavi geografije: učenice, mlađi od anketiranih osnovaca (6. i 7. razred), učenici 2. razreda srednjih škola (naročito gimnazijalci), učenici srednjih stručnih škola koji ne poseduju računar kod kuće i mlađe učenice osnovnih i srednjih stručnih škola. Rezultati ove studije mogu biti od koristi nastavnicima, roditeljima, državnim nadležnim ustanovama koje se bave strategijama obrazovanja i softverskoj industriji.

Rezultat rada na projektu br. 176020, finansiranim od strane Ministarstvo prosvete, nauke i tehnoloskog razvoja Republike Srbije.

*Ključne reči:* percepcija učenika, kognitivne prednosti, Internet, geografija, Srbija

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## Pupils' perception of cognitive advantages of Internet use while teaching geography

This research aimed to determine whether Internet-assisted teaching is adequate for pupils and whether they perceive Internet as useful for cognitive processing of curriculum. Pupils' perceptions of cognitive advantages of Internet use while teaching geography were examined. Specifically, we explored several aspects of cognition: memory, learning, mental schemas, computation and reasoning. We also considered the effects of pupils' gender, school (grade and type of school combined) and computer possession at home. Questionnaires were distributed to 1563 pupils of different grade and type of primary and secondary schools in Serbia. Results indicate that apart from learning ( $M = 4.04$ ), most of the cognitive benefits of Internet use while teaching geography (ITG) have been perceived as rather low i.e. below average. General linear modeling showed that there are two significant main effects – gender and school. Furthermore, there are two significant interaction effects on perceived cognitive advantages – computer possession with school and gender with school. Following groups perceive higher benefits of the Internet use while teaching geography for cognitive processing: female pupils, younger questioned primary school pupils (6th and 7th grade), 2nd grade pupils of secondary schools (especially for gymnasiums), career school pupils without computer and younger female pupils of primary and career schools. Results of this study can be of use to teachers, parents, state education strategy makers and software industry.

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**Keywords:** pupils' perception, cognitive advantages, Internet, geography teaching, Serbia

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## Samoefikasnost i akademska motivacija u adolescenciji

Samoefikasnost kao ključni pojam sociokognitivne teorije često se u fundamentalnim i primenjenim psihološkim istraživanjima ističe kao značajan motivacioni činilac akademskog postignuća. U poslednjih nekoliko decenija sve više mesta u tim istraživanjima zauzima i alternativna pretpostavka o strukturi akademske motivacije prema teoriji samoodređenja. U ovim teorijama dosledno se zagovara raznorodnost ovih pretpostavljenih motivacionih činilaca akademskog postignuća. U cilju empirijske provere odnosa samoefikasnosti i vrsta akademske motivacije obavljeno je istraživanje na prigodnom uzorku od 976 ispitanika oba pola (63% ispitanica) i uzrasta od 15 do 19 godina ( $AS = 17$ ;  $SD = 0.92$ ). U istraživanju su primenjeni upitnici za merenje ovih osobina koji su se u nizu domaćih istraživanja pokazali psihometrijski solidnim. Generisani podaci su analizirani kanoničkom korelacionom analizom i kanoničkom analizom kovarijansi na nivou stavki i na novu užih aspekata samoefikasnosti i vrsta akademske motivacije. Pokazatelji saglasnosti i psihološki sadržaj ukazali su na značaj samo prvog para kanoničkih i kvazikanoničkih faktora nezavisno od toga da li su analize obavljene na nivou stavki ili na nivou optimalno definisanih dimenzija. Dakle, u odnosima samoefikasnosti i akademske motivacije dominira jedno opšte pravilo (za ajteme  $\rho_2 = .49$ ; za dimenzije  $\rho_2 = .39$ ): aspekti samoefikasnosti, a naročito akademska samoefikasnost, značajno i pozitivno kovariraju primarno sa unutrašnjom i spoljašnjom motivacijom, a sekundarno i sa introjektovanom motivacijom; samoefikasnost i amotivacija stoje u očekivanom negativnom odnosu. Saglasno pretpostavci iz sociokognitivne teorije i nekim empirijskim nalazima, samoefikasnost zaista u znatnoj meri zahvata u konativnu varijansu individualnog funkcionisanja. Ali, za razliku od vrsta akademske motivacije prema teoriji samoodređenja, samoefikasnost ne razlikuje vrste motivacionih procesa i osobina koje mogu biti od značaja za razumevanje akademskog postignuća. Ovakav nalaz može se tumačiti meta-teorijskim pojmovima integrativnih i autonomnih Ja-funkcija slobodnih od konflikata prema psihoanalitičkoj Ja-psihologiji, od kojih se delom pošlo i u početnim formulacijama teorije samoodređenja. Ali, pre ozbiljnijih

teorijskih razmatranja potrebne su dodatne provere pre svega uporedne, inkrementalne validnosti mera ovih osobina u odnosu na neke pouzdane i valjane mere obrazovnog postignuća mladih.

*Ključne reči:* adolescencija, samoefikasnost, akademska motivacija, kanonička korelacija

### Self-efficacy and academic motivation in adolescence

Self-Efficacy, a key construct of social cognitive theory is often considered as a significant motivational factor of academic achievement, both in fundamental and applied psychological research. However, over the last few decades, an alternative hypothesis about the structure of academic motivation has gained an increasing attention – the hypothesis based on the self-determination theory. The self-determination theory emphasizes the diversity of the presumed motivational factors for academic achievement. This inquiry aims at empirically verifying the relation between self-efficacy and several dimensions of academic motivation based on a sample of 976 subjects of both sex (63% females), aged between 15 and 19 ( $M = 17$ ;  $SD = 0.92$ ). The applied questionnaires for measuring these personality traits have proved psychometrically sound in a number of studies carried out in Serbia. The data generated are analyzed using canonical correlation analysis and canonical covariance analysis both on the item level and on the level of narrower aspects of self-efficacy and academic motivation. The congruence coefficients and the psychological content indicated the significance of the first pair of canonical and quasi-canonical factors, independently of whether the analyses are carried out on the item level or on the level of optimally defined dimensions. Therefore, one general rule dominates the relationships between self-efficacy and academic motivation (for items  $\rho^2 = .49$ ; for dimensions  $\rho^2 = .39$ ): narrower aspects of self-efficacy, especially academic self-efficacy, significantly and positively co-vary primarily with intrinsic and extrinsic motivation and, secondly, with introjected motivation; self-efficacy and amotivation are negatively correlated, as expected. In accordance with the hypothesis based on the social cognitive theory, as well as with some previous empirical findings, self-efficacy shares a significant part of variance with conative individual functioning. However, contrary to the hypothesis about academic motivation based on the self-determination theory, self-efficacy does not differentiate the kinds of motivational processes and traits which may be significant for understanding academic achievement. Such findings can be interpreted using meta-theoretical concepts of integrative and autonomous

conflict-free Ego-functions according to psychoanalytic Ego-psychology, which has been, at least in part, also the starting point of self-determination theory. Nevertheless, preceding any serious theoretical considerations, further research into incremental validity of these traits in connection with certain reliable and valid measures of educational achievement of young people is needed.

*Keywords:* adolescence, self-efficacy, academic motivation, canonical correlation

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### Struktura vrednosti, zadovoljstvo školom i planovi za budućnost srednjoškolaca

Već duže vreme suočeni smo sa društvenim okolnostima koje se karakterišu kao „kriza vrednosti“, u kojima odrastaju deca i mladi. Švarcova teorija univerzalnih sadržaja i strukture vrednosti određuje vrednosti kao poželjne ciljeve, različite važnosti, koji deluju kao usmeravajuća načela u čovekovom životu. U ovoj teoriji identifikovano je deset različitih motivacijskih tipova vrednosti: moć, postinuće, hedonizam, podsticaj, nezavisnost, univerzalizam, dobrohotnost, tradicija, konformizam i sigurnost.

Cilj istraživanja je bio da se utvrdi koje tipove vrednosti učenici srednjih škola biraju kao najvažnije i da li postoji povezanost ranga tipa vrednosti sa njihovim zadovoljstvom školom i namerama nakon škole. Uzorak je obuhvatao 553 učenika (ženskog i muškog pola) završnih razreda novosadskih srednjih škola. Rang vrednosti utvrđen je zahtevom da se rangira ukupno 12 vrednosti: sigurnost, zdravlje, poštovanje i odnosi sa roditeljima i starijima, religioznost/duhovnost, prijateljski odnosi, imati dovoljno novca, ljubavni odnosi, uključenost u aktivnosti za opšte dobro, kreativnost i samostalnost, raznovrsnost života i uživanje u životu, postignuće/uspeh i imati posao koji se voli, pri čemu je najznačajnija vrednost zauzimala prvo mesto, a najmanje značajna dvanaesto. Zadovoljstvo školom i nastavom je ispitano ajtemom sa petostepenom skalom, a planovi za budućnost su



ispitani ajtemom sa 4 ponuđene mogućnosti (upisaću studije, otvoriću svoju preduzetničku firmu, naći ću posao, nešto drugo).

Rezultati pokazuju da je polovina učenika zadovoljna školom i nastavom (oko 50% učenika izveštava da je uglavnom ili veoma zadovoljno). Najveći broj učenika posle škole planira da upiše fakultet (oko 74%). Zdravlje kao životnu vrednost 80% učenika smešta na prvo mesto. Na sledeća 4 mesta se nalaze sigurnost, poštovanje roditelja i starijih, prijateljski i ljubavni odnosi. Imanje dovoljno novca kao vrednost 38% učenika smešta među prvih šest mesta. Trećina učenika religioznost/duhovnost rangira kao najmanje važnu životnu vrednost. Nisko se rangira i uključenost u aktivnosti za opšte dobro - 65% učenika ovu vrednost smešta ispod 8. ranga. Raznovrsnost i uživanje u životu, postignuća/uspeh, kreativnost/samostalnost i imanje posla koji se voli su najčešće rangirani između 5. i 8. mesta. Ispitivanje povezanosti ranga vrednosti i zadovoljstva školom i nastavom je pokazalo značajnu, ali veoma nisku pozitivnu povezanost zadovoljstva školom i nastavom sa vrednostima zdravlje ( $r = .09, p < .05$ ) i poštovanje i odnosi sa roditeljima i starateljima ( $r = .11, p < .05$ ) i veoma nisku negativnu povezanost sa vrednosti imati dovoljno novca ( $r = .11, p < .05$ ). Grupe učenika sa različitim planovima za budućnost se razlikuju u rangiranju vrednosti: Sigurnost, Religioznost/duhovnost, Imati dovoljno novca, Ljubavni odnosi i Uključenost u aktivnosti za opšte dobro.

*Ključne reči:* srednjoškolci, tipovi vrednosti, zadovoljstvo školom, planovi za budućnost

### Values, school satisfaction and plans for the future of secondary school students

For a long time we are faced with social circumstances that qualify as a "crisis of values", in which children and young people grow up. Schwartz's theory of basic values determines the values as desirable goals, of different importance, which act as guiding principles in human life. In this theory, ten different motivational types of values are identified: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security.

The aim of our study was to determine which types of value high school students select as the most important and to determine whether there are correlations among values rank with students' satisfaction with the school and their plans after school. The sample included 553 students, attending final grades of secondary schools in Novi Sad. Value rank is determined by the request to rank a total of 12

values: Safety, Health, Respect and relationships with parents and the elderly, Religiosity/spirituality, Friendship, Have enough money, Romantic relationships, Involvement in activities for the common good, Creativity and independence, Diversity life and enjoyment of life, Achievement/success and Have a job that one loves. The most significant value had first rank, and the least significant twelfth. Satisfaction with school and teaching was tested by one-item five-point scale, and plans for the future were examined with the item of 4 offered responses: (enroll in higher education, open own entrepreneurial firm, will find a job, something else).

The results show that half of the students are satisfied with education and teaching. The largest number of students after school plan to enroll in higher education (about 74%). Health as a vital value was placed as first by 80% of the students. In the next four places are Safety, Respect for parents and elders, and Romantic relationships. Having enough money was the value that 38% of students placed among the top six places. One third of students ranked Religiosity/spirituality as the least important value in their life. Low rank was established also for Involvement in activities for the public good (65% of the students stored this value below rank 8). The Diversity and enjoyment of life, Achievements/success, Creativity and independence and Having a job that one likes were usually ranked between 5th and 8th places. Correlation testing of value rank and satisfaction with school and teaching has shown a significant but very low positive correlation between satisfaction with the school and teaching with the values of Health ( $r = .09, p < .05$ ) and Respect and relationships with parents ( $r = .11, p < .05$ ) and a very low negative correlation with the values Having enough money ( $r = -.11, p < .05$ ). Groups of students with different plans for the future differ also in ranking following values: Safety, Religiosity /spirituality, Having enough money, Romantic relationships and Involvement in activities for the public good.

**Keywords:** secondary school pupils, values, school satisfaction, plans for the future

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## Primena Jungove metode aktivne imaginacije u radu sa decom sa smetnjama u razvoju

Podsticanje kreativnosti kod dece sa smetnjama u razvoju se pozitivno odražava na uspostavljanje boljeg kontakta sa emocijama, pa i na celokupni razvoj učenika. Cilj ovog rada je da prikaže efekte Jungove metode aktivne imaginacije u radu sa učenicima sa smetnjama u razvoju.

U radu sa učenicima koristila sam Jungovu metodu aktivne imaginacije. Aktivna imaginacija predstavlja aktivno i kreativno suočavanje sa unutrašnjim slikama i fantazijama uz stvaralačku razradu (slikanje, modelovanje u glini, pisanje). Estetski kriterijum prilikom rada sa glinom nije od velikog značaja. Navedeni medijum predstavlja način da se prepoznaju, izraze, uobliče i osmisle sopstvena unutrašnja stanja, doživljavanja, oseti, strahovi, nedovoljno jasna ili opterećujuća osećanja. Nakon stvaranja produkta aktivne imaginacije, o njemu se razgovara, ukoliko učenik ume da verbalizuje svoja osećanja. Učenici petog razreda su opservirani u periodu od šest meseci. Napravila sam kontrolnu listu na osnovu koje sam vršila opservaciju učenika eksperimentalne i kontrolne grupe. Prva grupa od tri učenika (eksperimentalna grupa) bila je podvrgnuta tretmanu jednom nedeljno, dok je kontrolna grupa, koja nije bila podvrgnuta tretmanu (takođe od tri učenika, sa sličnim sposobnostima) opservirana na osnovu iste kontrolne liste: 1. Anksioznost učenika, 2. Fluktuacija pažnje ispitanika, 3. Kontakt sa materjalom - kako i da li se ispitanik igra sa glinom, 4. Motivacija učenika (pratila sam da li postoji unutrašnja motivacija i kako se menja u vremenu kao i vreme provedeno u radu, 5. Ponašanje učenika posle tretmana, o čemu su me izveštavali nastavnici (pratili su interakciju učenika sa drugarima iz odeljenja nakon tretmana kao i promene u ponašanju učenika ), 6. Razgovor o ličnim sadržajima. Učenici koji su prošli kroz tretman su se posle šest meseci osećali znatno opuštenije, smirenije i radosnije. Učenici su vajali, bojili izvajano, pričali o svojim asocijacijama i emocijama koje ih prate, igrali se glinom i znatno duže vremena provodili u radu. Pažnja učenika je znatno poboljšana i u drugim nastavnim aktivnostima. Njihov kontakt sa drugim učenicima je postao prisniji, o čemu su me izveštavali nastavnici kao i o poboljšanju pažnje prilikom rada učenika na različitim nastavnim sadržajima.

Na osnovu rezultata ove opservacije možemo da zaključimo da postoje značajni pozitivni efekti primene metode aktivne imaginacije u radu sa učenicima sa smetnjama u razvoju, i da bi bilo korisno primeniti ovu metodu u radu sa većinom učenika sa smetnjama u razvoju, uz adekvatno vođenje poznavalaca metode aktivne imaginacije.

*Ključne reči:* učenici sa smetnjama u razvoju, aktivna imaginacija, glina, slobodno modelovanje, opservacija, adekvatan kontakt sa emocijama, balans

### The application of Jung's method of active imagination in working with children with disabilities

Encouraging creativity in children with disabilities has a positive impact on establishing better contact with their emotions, and even the overall development of students. The purpose of this research is to describe the effects of Jung's method of active imagination in working with students with disabilities. In the work with students I used Jung's method of active imagination.

Active imagination is the active and creative coping with internal images and fantasies with creative elaboration (painting, modeling in clay and writing). Esthetic criteria when working with clay is not of a great importance. It is a way to recognize, express, shape and develop their own emotions, experiences, fear, lack of defined feelings or some troublesome feelings. After creating the product of active imagination, this formed product is being discussed, if the student knows how to verbalize his/her feelings. Fifth-graders were observed for a period of six months. I made a check list on which I conducted observation of students in the experimental and control groups. The first group of three students (experimental group) was subjected to the treatment once a week, while the control group, which was not subjected to the treatment (also three students with similar capabilities) was observed in the basis of the same check lists: 1. Anxiety in students, 2. Fluctuation of attention of the respondents, 3. Contact with the material / how and whether the examinee was playing with clay, 4. Motivation of students (I followed if there was an internal motivation and how it changes in time as well as time spent in work, 5. Student behavior after treatment / what teachers reported to me (after the treatment they followed the examinees home with their friends and observed changes in student's behavior), 6. Talk about personal content. After six months, students who have been a part of the treatment felt much more relaxed, peaceful and more cheerful. Students have sculpted and painted. They were able to define

their associations verbally and also the emotions that follow them. They played with clay and spent significantly more time working. Student's attention also improved in other educational activities. The teachers reported that their contact with other students became more open and their attention while working improved.

Based on these observations, we can conclude that there are significant positive effects of the method of active imagination in working with students with disabilities, and that it would be useful to apply this method to work with the majority of students with disabilities, with adequate leadership of experts in methods of active imagination.

*Keywords:* students with disabilities, active imagination, clay, free modeling, observation, adequate contact with the emotions, balance

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### Stavovi prema inkluzivnom obrazovanju kod nastavnika osnovnih i srednjih škola

Cilj ovog istraživanja bio je da utvrdi stavove prema inkluzivnom obrazovanju kod nastavnika osnovnih i srednjih škola. U istraživanju su korišćeni Skala stavova prema inkluzivnom obrazovanju (SIO: Todorović et al., 2012), kao i Upitnik za prikupljanje podataka o socio-demografskim varijalama. Istraživanje je sprovedeno na teritoriji grada Niša i u njemu je učestvovalo 184 nastavnika, od toga 91 nastavnik iz osnovnih i 93 nastavnika iz srednjih škola. Rezultati ovog istraživanja su pokazali da su stavovi nastavnika prema inkluzivnom obrazovanju umereno pozitivni ( $AS = 3.79$ , raspon skale od 1 do 6). Zanimljivo je da su na subskali koja se odnosi na Odgovornosti i kompetentnost škole i nastavnika za pružanje podrške deci sa smetnjama i teškoćama nastavnici pokazali pozitivnije stavove ( $AS = 4.55$ ) u odnosu na subskalu koja se odnosi na Stavove prema školovanju dece sa teškoćama u redovnoj školi ( $AS = 3.54$ ). Ovaj rezultat nas upućuje na to da nastavnici, iako osećaju odgovornost (kako svoju tako i kolektivnu) da takvoj deci treba pružiti pomoć, imaju manje pozitivne stavove prema tome da se takvo dete nađe u

njihovom odeljenju. Ipak, treba imati u vidu da su stavovi pozitivni na obe subskale. Takođe, rezultati ukazuju na to da su nastavnici osnovnih škola pokazali pozitivnije stavove od nastavnika srednjih škola ( $p < .05$ ). Dobijeni su i rezultati da su stavovi nastavnika o inkluzivnom obrazovanju u korelaciji sa pohađanjem dodatnih edukacija iz oblasti inkluzivnog obrazovanja ( $r = .235$ ,  $p < .01$ ), iskustvom nastavnika u radu sa decom kojoj je bila potrebna dodatna podrška u obrazovanju ( $r = .169$ ,  $p < .05$ ), kao i sa dužinom radnog staža ( $r = -.198$ ,  $p < .01$ ), odnosno da su stavovi pozitivniji kod nastavnika koji imaju manje godina radnog iskustva, a više iskustva u radu sa decom kojoj je bila potrebna dodatna podrška u obrazovanju i pohađali su više dodatnih edukacija iz oblasti inkluzivnog obrazovanja. Posebno je zanimljiv ovaj poslednji podatak koji ima direktne praktične implikacije sadržane u tome da se intenzivnijim edukacijama u oblasti inkluzije može doprineti formiranju pozitivnijih stavova prema inkluzivnom obrazovanju kod nastavnika.

*Ključne reči:* stavovi, inkluzivno obrazovanje, nastavnici

### Teachers' attitudes in primary and secondary schools on inclusive education

This paper is aimed to examine primary and secondary school teachers' attitudes toward inclusive education. Instruments used in the research are: Attitudes toward Inclusive Education Scale (SIO: Todorović et al., 2012), as well as the Questionnaire for teachers used for collecting data on socio-demographic variables. Research was conducted in the city of Niš and it has included 184 teachers, 91 of them teaching in primary schools and the rest are high school teachers. Research results show that teachers have moderately positive attitudes toward inclusion ( $M = 3.79$ , range scales 1 – 6). It is interesting that teachers showed more positive attitudes at the subscale related to the Responsibilities and competence of school and teachers to support children with disabilities ( $M = 4.55$ ) compared to the attitudes shown at the subscale related to Attitudes towards education of children with disabilities in regular schools ( $M = 3.54$ ). This result indicates that, although teachers feel personal and collective responsibility to support such children, they have less positive attitudes to having such a child in their own class. However, it should be taken into account that attitudes are positive on both subscales. The results also have shown that primary school teachers expressed more positive attitudes toward inclusion than secondary school teachers ( $p < .05$ ). Obtained results show that teachers' attitudes towards inclusive education are correlated with their participating in attending additional trainings in the area of inclusive education ( $r =$

.24,  $p < .01$ ), with the experience in working with children who need additional support in education ( $r = .17$ ,  $p < .05$ ), and with general teachers' working experience ( $r = -.20$ ,  $p < .01$ ). That is to say that teachers who have less years of working experience and more experience in working with children who need additional support in education, and also attended more additional trainings in the area of inclusive education, have more positive attitudes toward inclusive education. The last data is particularly interesting because its practical implication which suggests that more intensive training in the field of inclusive education could contribute to building more positive teachers' attitudes toward inclusive education.

*Keywords:* attitudes, inclusive education, teachers



PORODIČNA I BRAČNA INTERAKCIJA



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## Doprinos percipirane brižnosti i responzivnosti partnera na kvalitet bračnog odnosa

Mnogobrojni pokušaji da se reši savremeni problem bračne krize ostaju bezuspešni. U našem istraživanju postavili smo pitanje u kojoj meri percepcija brižnosti, nesebičnosti i responzivnosti bračnog partnera doprinosi kvalitetu bračnog odnosa. Pošto je svaki odnos interaktivan proces, polazeći od teorije afektivne vezanosti i teorije socijalne razmene pretpostavili smo da će kvalitet bračnog odnosa sa jedne strane biti povezan sa očekivanjima koja imamo od bračnog partnera i koja unosimo u bračni odnos (afektivno vezivanje), a sa druge s brižnošću, poštovanjem, razumevanjem i nesebičnom ljubavi koje nam partner pruža.

Istraživanje je urađeno na uzorku od 280 bračnih parova iz Zagreba uzrasta od 21 do 61 godinu. Upotrebljeni instrumenti su: Modifikovana verzija Inventara za ispitivanje iskustava u bliskim vezama (Kamenov & Jelić, 2003), Upitnik za ispitivanje brižnosti (Kunce & Shaver, 1994), Upitnik za ispitivanje opažene partnerske responzivnosti (Reis & Shaver, 1988) i Subskala agape-nesebična ljubav iz Skale ljubavnih stilova (Hendrick & Hendrick, 1990). Za ispitivanje kvaliteta bračnog odnosa upotrebljen je Indeks kvaliteta bračnog odnosa (Norton, 1983). Prethodna istraživanja su ukazala na problem upotrebe samoizveštavajućih instrumenata u ispitivanju prosocijalnog ponašanja i male korelacije samoizveštavajućeg i opaženog prosocijalnog ponašanja. Kako bi povećali validnost podataka, izradili smo i upotrebili i instrumente za ispitivanje opažene brižnosti i opažene nesebične ljubavi.

Rezultati ukazuju da je kvalitet bračnog odnosa najviše pozitivno povezan sa opaženom responzivnošću, opaženom nesebičnom ljubavi i opaženom osjetljivom brižnošću, a negativno sa nesigurnom afektivnom vezanosti (izbegavanje i anksioznost). Kao značajniji prediktor kvaliteta bračnog odnosa pokazala se opažena responzivnost, opažena brižnost i opažena nesebična ljubav partnera od

sopstvene privrženosti (ličnih očekivanja). Možemo da zaključimo da je naše istraživanje pokazalo da su percepcija nesebičnosti, poštovanja, razumevanja i brižnosti partnera veoma važni za kvalitet bračnog odnosa, a to su vrednosti koje u savremeno vreme individualizma, materijalizma i hedonizma polako iščezavaju. Ovi nalazi imaju značajne implikacije za preventivni i terapijski rad sa intimnim parovima.

*Ključne reči:* afektivno vezivanje, opažena osetljiva brižnost, opažena partnerska reponzivnost, opažena nesebična ljubav, kvalitet bračnog odnosa

### The role of partner's caregiving and responsiveness in marital quality

Many attempts to solve the modern problem of marriage crisis are proved to be unsuccessful. In our study we have examined the contribution of perceived spouse's caregiving, altruistic love and responsiveness to the quality of marriage relationship. Since every relationship is an interactive process, according to attachment theory and social exchange theory we have assumed that the quality of marriage relationship will be, on the one hand, determined with the individual's expectations from the marriage partner, and on the other hand, with caregiving, respect, understanding and altruistic love one receives from the partner.

The sample is consisted of 280 married couples from Zagreb, aged from 21 to 61. The instruments used in the research were: Modified Experiences in Close Relationships Inventory (Kamenov & Jelić, 2003), Caregiving Questionnaire (Kunce & Shaver, 1994), Perceived Partner Responsiveness (Reis & Shaver, 1988) and Agape – Altruistic Love Subscale from Love Attitudes Scale (Hendrick & Hendrick, 1990). Quality Marriage Index (Norton, 1983) was used for assessment of quality of marriage relationship. The previous research studies have pointed out that using self-report instruments for research of prosocial behaviour is problematic due to the low correlation between self-reported and perceived prosocial behaviour. In order to increase the validity of data, we have developed and used instruments for assessment of perceived partner's caregiving and altruistic love.

The results indicate that the quality of marriage relationship is positively correlated with perceived responsiveness, perceived altruistic love and perceived sensitive caregiving, as well as negatively linked to insecure attachment (avoidance and anxiety). Perceived responsiveness, perceived altruistic love and perceived sensitive caregiving received from partner are more important predictors of the quality of marriage relationship than attachment (personal expectations). We

could conclude that our research study has shown that the perception of partner's selflessness, respect, understanding and caregiving are very important for the quality of marriage relationship, which are at the same time the values that are diminishing in the modern time of individualism, materialism and hedonism. Therefore, these findings have significant implications for preventive and therapeutic work with intimate couples.

**Keywords:** attachment, perceived partner's responsiveness, perceived caregiving, perceived altruistic love, marital quality

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## Povezanost samoopažanja i percepcije kvaliteta bračnog odnosa kod žena

Teorijsko polazište rada predstavlja teorija socijalne razmene. Rezultati istraživanja koji su prikazani ovim radom predstavljaju deo projekta "Efekti egzistencijalne nesigurnosti na pojedinca i porodicu u Srbiji", koji finansira Ministarstvo prosvete i nauke Republike Srbije (DN 179022).

U cilju utvrđivanja u kojoj meri samoopažanje kod žena doprinosi njihovoj percepciji kvaliteta bračnog odnosa, kao i njihovoj percepciji pojedinačnih dimenzija kvaliteta bračnog odnosa (konsenzusa, zadovoljstva, kohezivnosti i afektivno-seksualne usaglašenosti), ispitano je 2206 žena, starosti od 19 do 76 godina, različitog socio-ekonomskog statusa, koje žive ubračnoj ili vanbračnoj zajednici. Kvalitet bračnog odnosa je meren Skalom prilagođenosti u bračnom odnosu (Dyadic Adjustment Scale – DAS: Spanier, 1989), a samoopažanje stavkama skale MVI-7 (Mate Value Inventory, Kirsner, Figueredo, & Jacobs, 2003).

Višestrukim regresionim analizama utvrđena je statistički značajna povezanost između prediktorskog skupa varijabli i kvaliteta bračnog odnosa u celini ( $R = .51$ ;  $F(1851,17) = 38.67$ ;  $p < .01$ ), kao i između skupa prediktorskih varijabli i pojedinačnih dimenzija kvaliteta bračnog odnosa: konsenzusa ( $R = .48$ ;  $F(1979,17) = 33.85$ ;  $p < .01$ ), zadovoljstva brakom ( $R = .47$ ;  $F(1943,17) = 31.89$ ;  $p < .01$ ), kohezivnosti ( $R = .41$ ;

$F(1974,17) = 22.92; p < .01$ ) i afektivno-seksualne usaglašenosti para ( $R = .48; F(1980,17) = 35.73; p < .01$ ). Kao samostalni značajni prediktori, i bračnog kvaliteta u celini (DAS total) i pojedinačnih dimenzija kvaliteta braka, izdvojile su se samoprocene sledećih karakteristika: vernost partneru; zainteresovanost za seks; emocionalna stabilnost i dobro zdravlje. Praktična korist ovih nalaza se ogleda u mogućnosti njihove implementacije u preventivne programe prebračnih savetovališta.

*Ključne reči:* partnerski odnosi, bračni odnosi, samoopažanje, bračni kvalitet

### Relationships between the wife's self-perception and hers perception of the marital quality

In order to determine the relationships between the wife's self-perception and hers perception of the individual dimensions of marital quality (Dyadic Consensus, Dyadic Satisfaction, Dyadic Cohesion and Affectional Expression), we examined 2206 wives (19-76 years) of diverse socio-economic status, living in the formal or informal marriage. The quality of the marital relationship was measured by a Dyadic Adjustment Scale - DAS (Spanier, 1976), and the wife's self-perception was measured by a Mate Value Inventory (Kirsner, Figueredo, & Jacobs, 2003). The results of the multiple regression analysis are showing the statistically significant multiple correlation between the set of predictor variables and the marital quality ( $R = .51; F(1851,17) = 38.67; p < .01$ ), as well as for the individual dimensions of marital quality: Dyadic Consensus ( $R = .48; F(1979,17) = 33.85; p < .01$ ), Dyadic Satisfaction ( $R = .47; F(1943,17) = 31.89; p < .01$ ), Dyadic Cohesion ( $R = .41; F(1974,17) = 22.92; p < .01$ ) and Affectional Expression ( $R = .48; F(1980,17) = 35.73; p < .01$ ). The most significant predictors of the marital quality were the self-ratings on the following characteristics: Faithful (value fidelity), Sexually adventurous, Emotional stability and Healthy.

*Keywords:* intimate relations, marital relations, self-perception, marital quality

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## Predikcija potencijala za razvod kod žena na osnovu sociodemografskih varijabli

Istraživačka pitanja kojima se ovaj rad bavi su: u kojoj meri potencijalu za razvod kod žena, zajedno i pojedinačno, doprinose sledeće varijable: starost žena, starost njihovih partnera, njihov i partnerov redosled rođenja, dužina njihove veze pre braka, dužina zajedničkog života, subjektivna procena visine mesečnih prihoda domaćinstva u odnosu na prosek u našoj sredini, stepen obrazovanja žene i njenog partnera i broj članova domaćinstva.

U cilju utvrđivanja mogućnosti predikcije potencijala za razvod, kod žena u Srbiji, na osnovu navedenih sociodemografskih varijabli, ispitano je 2206 žena, starosti od 19 do 76 godina, koje žive u formalnom ili neformalnom braku. Potencijal za razvod je izražen Indeksom bračne nestabilnosti (Marital Instability Index: Booth, Johnson, & Edwards, 1983). Višestrukom regresionom analizom je utvrđena statistički značajna, ali niska, korelacija između skupa sociodemografskih varijabli i potencijala za razvod kod žena ( $R = .13$ ;  $F(1672,10) = 2.84$ ;  $p < .01$ ), a kao pojedinačni značajni prediktori izdvojili su se broj članova domaćinstva ( $\beta = -.11$ ,  $p < .01$ ) i visina mesečnih prihoda ( $\beta = -.06$ ,  $p < .05$ ) koji su u negativnoj korelaciji sa potencijalom za razvod kod žena. Nalazi istraživanja i njihove praktične implikacije će biti diskutovani u kontekstu teorije socijalne razmene.

Rezultati istraživanja koji su prikazani ovim radom predstavljaju deo projekta "Efekti egzistencijalne nesigurnosti na pojedinca i porodicu u Srbiji", koji finansira Ministarstvo prosvete i nauke Republike Srbije (DN 179022).

**Ključne reči:** brak, bračni odnosi, bračna nestabilnost, potencijal za razvod, sociodemografske varijable

## Prediction of wife's potential for divorce based on the sociodemographic variables

In order to determine the relationships between set of socio-demographic variables and wife's potential for divorce, we examined 2206 wives of different socioeconomic status, 19 to 76 years old, living in formal or informal marriage. Potential for divorce was assessed through the Marital Instability Index (Booth, Johnson, & Edwards, 1983). Examined socio-demographic variables were: age, partner's age, birth order in the families of origin of both husbands and wives, duration of premarital relationship, duration of the marriage, subjective evaluation of monthly household income, degree of education, partner's degree of education and the number of family members in the household. The results of the multiple regression analysis are suggesting that a correlation between the set of socio-demographic variables and the wife's potential for divorce is statistically significant, although the association is low ( $R = .13$ ;  $F(1672,10) = 2.84$ ;  $p < .01$ ). The results are also showing that the significant predictors of divorce potential are the number of family members in the household ( $\beta = -.11$ ,  $p < .01$ ) and the subjective evaluation of monthly household income ( $\beta = -.06$ ,  $p < .05$ ).

*Keywords:* marriage, marital relations, marital instability, potential for divorce, socio-demographic variables

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## Sadržaj konflikta kao prediktor detetove reakcije na roditeljski konflikt

Konflikti u porodičnom sistemu imaju relevantnu ulogu u funkcionisanju porodičnog sistema, ali i u razvoju svakog člana sistema. Najveći broj istraživanja porodičnog sistema se bavi istraživanjem efekata konflikta unutar sistema na sam sistem i njegove članove. Konflikti među roditeljima se neretko prelivaju na decu i mogu imati negativne posledice po razvoj deteta. Način na koji dete reaguje na roditeljski konflikt se može razlikovati u odnosu na detetovu percepciju konflikta i doživljaja da se konflikt odnosi na samo dete. Ovo istraživanje pokušava da odgovori na pitanje da li detetova percepcija sadržaja roditeljskog konflikta

predviđa bihejvioralnu disregulaciju koja podrazumeva nemir, napetost i gubitak kontrole, uz emocionalnu reaktivnost kao moderator varijablu. Uzorak se sastojao od 146 dece (55.1% ženskog pola), prosečne starosti 13 godina. Korišćena je subskala sadržaj roditeljskog konflikta iz upitnika Detetova percepcija bračnog konflikta (Child perception of interparental conflict scale - CPIC) i subskale emocionalna reaktivnost i bihejvioralna disregulacija iz upitnika Sigurnost unutar roditeljskog subsistema (Security in the interparental subsystem scale-SISS). Nakon što je preliminarnim analizama utvrđeno da su zadovoljene pretpostavke normalnosti, linearnosti i multikolinearnosti sprovedena je analiza moderacije, sa bihejvioralnom disregulacijom kao kriterijum varijablom. Percepcija sadržaja konflikta i emocionalna reaktivnost predstavljaju značajan prediktivni model ( $F = 4.99$ ,  $p = .01$ ,  $R^2 = .065$ ) gde se kao značajan prediktor izdvaja samo percepcija sadržaja konflikta ( $\beta = -.20$ ,  $p < .05$ ). Uvođenjem emocionalne reaktivnosti kao moderator varijable, rezultati analize moderacije pokazuju da ovakav prediktivni model objašnjava 10% varijanse ( $F = 5.18$ ,  $p = .00$ ) i da je moderatorski efekat emocionalne reaktivnosti značajan za objašnjenje bihejvioralne disregulacije ( $\beta = .55$ ,  $p < .05$ ). Kada dete percipira da se sadržaj konflikta među roditeljima tiče njega samog i njegovih postignuća i aktivnosti, niska emocionalna reaktivnost predstavlja protektivni faktor za ispoljavanje bihejvioralne disregulacije. Visoka emocionalna reaktivnost predstavlja faktor rizika za ispoljavanje bihejvioralne disregulacije u vidu gubitka kontrole, napetosti, nemira kod dece čak i kada dete nema doživljaj da je sadržaj roditeljskog konflikta povezan sa njim samim. Sadržaj konflikta koji se ne odnosi na dete dovodi do emocionalne nesigurnosti i osećaja gubitka kontrole gde detetu nisu poznati razlozi konflikta. Rezultati daju smernice za rad sa roditeljima i decom u vidu objašnjenja konflikta i jačanju porodičnog sistema i emocionalne sigurnosti.

Istraživanje je deo projekta br. 179022 „Efekti egzistencijalne nesigurnosti na pojedinca i porodicu u Srbiji“, podržanog od strane Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije.

*Ključne reči:* emocionalna reaktivnost, bihejvioralna disregulacija, prodični sistem, roditeljski konflikt, sadržaj konflikta

## Content of the conflict as a predictor of child's reaction to the parental conflict

Conflicts within the family system have a relevant role in the functioning of the family, but also in the development of each member of the system. Most of the research of the family systems examine the effects of conflict on the system itself and its members. Conflicts between parents often spill over to the children and can have negative effects on child development. The way the child reacts to a parental conflict may differ in relation to the child's perception of being the subject of the conflict. This study attempts to answer the question of whether the child's perception of the content of parental conflict predicts behavioral dysregulation, which includes restlessness, tension and loss of control, with emotional reactivity as moderator variable. The sample consisted of 146 children (55.1% female), average age 13 years. We used a subscale Content of parental conflict from questionnaire Child perception of interparental conflict scale – CPIC, and the subscales Emotional reactivity and Behavioral dysregulation of questionnaire Security in the interparental subsystem scale - SISS. After the assumptions of normality, linearity and multicollinearity were met, we conducted a moderation analysis, with behavioral dysregulation as a criterion variable. The perception of the content of the parental conflict and emotional reactivity represent a significant predictive model ( $F = 4.99, p = .01, R^2 = .065$ ), where the perception of the content of conflict was the only significant predictor ( $\beta = -.20, p < .05$ ). When emotional reactivity was introduced as a moderator variable, the results showed that this predictive model explains 10% of variance ( $F = 5.18, p = .00$ ) and that the moderating effect of emotional reactivity was significant ( $\beta = .55, p < .05$ ). When the content of the parental conflict does not include the child, low emotional reactivity can be seen as a protective factor for manifestation of behavioral dysregulation. High emotional reactivity is a risk factor for behavioral dysregulation in terms of loss of control, tension and restlessness, even when the content of the parental conflict does not include the child, his actions and achievements. Even when the content of the conflict does not include the child, the conflict leads to emotional insecurity and perception of loss of control if the child does not know the reasons and causes of conflict. The results provide guidelines for working with parents and children, in form of explaining conflicts and the strengthening the family system and emotional security.



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Keywords: emotional reactivity, behavioral dysregulation, family system, parental conflict, contents of conflict

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### Vremenske perspektive i odnos roditelja kao prediktori stilova komunikacije u bliskim vezama

U svakom bliskom odnosu u nekom trenutku dođe do sukoba, no ono što je bitno za kvalitetu odnosa je način na koji se sukob rješava. Od tri stila komunikacije prilikom sukoba obrazac konstruktivne komunikacije povezan je sa zadovoljstvom i kvalitetom intimnog odnosa, dok su obrazac uzajamnog izbjegavanja rasprave i suzdržavanja, te obrazac zahtijevanja promjene i povlačenja, u kojem možemo uočiti obrazac ženskog zahtijevanja i muškog povlačenja te obrazac muškog zahtijevanja i ženskog povlačenja prediktivni za razvod i prekid veze. Stilovi komunikacije razvijaju se u djetinjstvu odgojem i opažanjem ponašanja odraslih, te su pod utjecajem kulture. Odrednica komunikacije u vezi su i tzv. vremenske perspektive - usmjerenost na prošlost (negativnu i pozitivnu), sadašnjost (hedonizam i fatalizam) i budućnost, koje predstavljaju kognitivne stilove koji se također razvijaju putem odgoja i kulture, te usmjeravaju naše doživljavanje i ponašanje. Cilj ovog istraživanja bio je ispitati jesu li vremenska perspektiva i kvaliteta međusobnog odnosa roditelja sudionika u razdoblju sudionikovog pohađanja srednje škole prediktori komunikacije u intimnim vezama na prelasku u odraslu dob. Pretpostavljeno je da će osobe čiji su roditelji imali kvalitetniji međusoban odnos, kao i osobe adaptivnih vremenskih perspektiva biti sklonije pozitivnim obrascima komunikacije u vezi. Istraživanje je provedeno na uzorku od 155 mladih odraslih osoba u dobi od 18 do 30 godina koje su trenutno u vezi. Primijenjeni su Zimbardov inventar vremenskih perspektiva, te Upitnik komunikacijskih obrazaca prilikom sukoba. Sudionici suprocjenjivali zadovoljstvo

roditelja njihovim međusobnim odnosom, kvalitetu njihove veze, učestalost zajedničkih aktivnosti, te stupanj teškoća u braku roditelja u razdoblju kada je sudionik pohađao srednju školu. Rezultati pokazuju da bračne teškoće roditelja granično predviđaju komunikacijski obrazac muškog zahtijevanja uz žensko povlačenje za muškarce ( $\beta = .38, p < .05$ ), no ne i za žene. Vremenska perspektiva sadašnjosti hedonističke predviđa obrazac ukupne komunikacije zahtijevanja – povlačenja i na muškom i na ženskom dijelu uzorka ( $\beta = -.26, p < .05$ ). Vremenske perspektive i raniji odnos roditelja nisu predviđali konstruktivan obrazac komunikacije. Dobiveni nalazi ukazuju na nužnost daljnjih istraživanja vremenskih perspektiva i uloge bračnih teškoća roditelja kao odrednica komunikacije tijekom sukoba u intimnim vezama na prelasku u odraslu dob i pojašnjavanje njihove uloge i dobivenih rodničkih razlika na većim uzorcima, posebno kada se uzmu u obzir potencijalne praktične implikacije nalaza za rad s osobama koje imaju poteškoća u komunikaciji tijekom sukoba u intimnim odnosima.

*Ključne reči:* stilovi komunikacije, vremenska perspektiva, odnos roditelja

### Time perspective and parent's relationship quality as predictors of communication patterns in close relationships

In every close relationship conflicts sometimes occur, but what matters for relationship quality is how the conflict is dealt with. Of the three styles of communication during conflict, constructive communication is associated with relationship satisfaction and quality, while the pattern of mutual avoidance and withholding and demand-withdraw communication (man demand/woman withdraw communication and woman demand/man withdraw communication) are predictive for divorce. Communication patterns are formed in childhood through family influences and observational learning, and are influenced by culture. Another determinant of relationship behavior are time perspectives- the orientation to past (positive and negative), present (hedonistic and fatalistic) and future. These time perspectives represent cognitive styles which are also formed through family influences and culture, and guide our perception and behavior. The aim of this research was to examine whether time perspective and parent's relationship quality and satisfaction predict communication styles in close relationships. It was hypothesized that individuals whose parents had a better relationship as well as those who have adaptive time perspectives will be more inclined to positive communication patterns. The sample consisted of 155 young adults aged between 18 and 30 who are currently in a relationship. We applied the

Zimbardo time perspective inventory and the Communication patterns questionnaire. The participants also assessed their parents' relationship quality, satisfaction, frequency of shared activities, and the amount of difficulties in the relationship at the time the participants were in high school. Results show that parents' relationship predicted the communication pattern of man demand/woman withdraw communication for men ( $\beta = .38, p < .05$ ), but not for women. Present hedonistic time perspective predicted the total amount of demand-withdraw communication for both men and women ( $\beta = -.26, p < .05$ ). Time perspectives and parents' relationship did not predict constructive communication. The results indicate there is a need for further research of time perspectives in the role of parents' marital difficulties as a determinant of communication during conflicts in close relationships in transition to adulthood. Their role in communication and the established gender differences should be examined on larger samples, especially when potential practical implications for counselling and therapy work with individuals who experience difficulties in communicating during conflict are taken into account.

**Keywords:** communication patterns, time perspective, parent's relationship



PSIHOLOGIJA ADOLESCENCIJE

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## Internalizirani problemi mladih u općoj populaciji i domovima za odgoj

Kada je riječ o mladima koji su uslijed različitih oblika društveno neprihvatljivog ponašanja korisnici domova za odgoj djece i mladeži, u literaturi se najčešće nailazi usmjerenost na njihove eksternalizirane probleme i rizične čimbenike koji im prethode. U ovom izlaganju naglasak će biti na internaliziranim problemima te je cilj utvrditi koliko se navedena populacija razlikuje od redovne školske populacije u izraženosti depresivnih i anksioznih simptoma. Također, provjeriti će se koliko različiti sociodemografski čimbenici, viktimizacija u obitelji i među vršnjacima, te zaštitni čimbenici (samopoštovanje, religioznost i privrženost roditeljima i prijateljima) objašnjavaju depresivnost učenika u redovnom srednjoškolskom programu i mladih s izraženim problemima u ponašanju koji su u tretmanu.

Rezultati istraživanja su dobiveni na uzorku od 578 sudionika iz 6 hrvatskih gradova, pri čemu je 472 sudionika dio redovne školske populacije drugog i trećeg razreda strukovnih srednjih škola i gimnazija. Preostalih 106 sudionika su zbog problema ponašanja korisnici tretmana u domovima za odgoj. Dob sudionika kretala se od 14 do 19 godina ( $M = 16.68$ ,  $SD = 0.88$ ). Korišteni su sljedeći instrumenti: Skala samosviđanja/samokompetentnosti (Tafarodi & Swann, 1995), Skala depresivnosti za djecu (Kovacs, 1992), subskala autoagresivnog ponašanja Upitnika samoiskaza rizičnog i delinkventnog ponašanja mladih (Ajduković, Ručević i Šincek, 2007), modificirana verzija Inventara privrženosti roditeljima i vršnjacima (Greenberg, 2009), Modificirani Upitnik za procjenu incidencije i prevalencije zlostavljanja i zanemarivanja djece (ISPCAN i UNICEF), novokonstruirana Skala doživljenog i počinjenog vršnjačkog nasilja, čestice ispitivanja svjedočenja nasilju u obitelji Skale rješavanja sukoba dijete-odrasli (Straus i sur., 1999) te niz pitanja vezanih uz sociodemografske podatke.

Rezultati pokazuju da mladi u tretmanu domova za odgoj postižu više rezultate na dimenzijama negativnog raspoloženja, interpersonalnih problema, neučinkovitosti, anhedonije, ukupne depresivnosti te autoagresivnog ponašanja, dok se od školskog uzorka ne razlikuju u izraženosti negativnog samopoštovanja i

anksioznosti. Hijerarhijske regresijske analize su pokazale da skupovi sociodemografskih varijabli, varijable viktimizacije te individualni zaštitni čimbenici objašnjavaju 57% varijance depresivnosti srednjoškolskog uzorka te 59% varijance depresivnosti uzorka mladih u tretmanu zbog problema u ponašanju. U raspravi rezultata naglasak će biti na prediktorima koji su se pokazali značajnima u odvojenim regresijskim analizama te na mogućim praktičnim implikacijama dobivenih rezultata.

*Ključne reči:* adolescenti, internalizirani problemi, depresivnost, dom za odgoj, viktimizacija

### Internalized problems of the youth in general population and community residential homes

When it comes to youth who are placed in the community residential homes because of different problem behaviors, the focus in the literature is mainly on their externalizing problems and risk factors that precede them. This presentation will focus on internalizing problems, and is aimed at determining in what way this population differs from the regular school population in the intensity of depressive and anxiety symptoms. Also, it will be analyzed how different socio-demographic factors, victimization in the family and peer context, and protective factors (self-esteem, religiosity and attachment to parents and peers) explain depression of students in regular high school program and youth with problem behaviors who are in treatment.

The research results have been obtained on a sample of 578 participants from 6 Croatian cities, where 472 participants were from the regular school population of second and third grade of vocational schools and gymnasiums. The remaining 106 participants were, due to problem behaviors, in the treatment of community residential homes. Participant were 14 to 19 years old ( $M = 16.68$ ,  $SD = 0.88$ ). The questionnaire consisted of: Self Liking/Self Competence Scale (Tafarodi & Swann, 1995), Children's Depression Inventory (Kovacs, 1992), auto-aggressive behavior subscale of Youth Self-Reported Delinquency and Risk Behaviors Questionnaire (Ajduković, Ručević and Šincek, 2007), modified version of Inventory of Parent and Peer Attachment (Greenberg, 2009), modified ISPCAN Child Abuse Screening Tool – Children's Version (ISPCAN and UNICEF), newly constructed Scale of Experienced and Perpetrated Peer Violence, witnessing family violence items in Conflict Tactics

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Scale Parent-Child (Straus et al., 1999), and items referring to socio-demographic data.

Results showed that youth in the community residential homes scored higher on the dimensions of negative mood, interpersonal problems, ineffectiveness, anhedonia, total depression and auto-aggressive behavior. There were no significant differences between these two groups regarding negative self-esteem and anxiety. Hierarchical regression analyses showed that sets of socio-demographic variables, victimization variables and individual protective factors explain 57% of the high school sample's depression variance and 59% of the variance of depression in the sample of youth involved in the problem behavior treatment. The discussion of the results will focus on the predictors that have proved to be significant in separate regression analyses and on the potential practical implications of the results.

**Keywords:** adolescents, internalizing problems, depression, institutions for education of children and juveniles, victimization

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## Odnos crta ličnosti, anksioznosti i depresivnosti kod adolescenata

Brojna istraživanja ispitivala su odnos anksioznih i depresivnih simptoma s osobinama ličnosti, međutim većina njih usmjerila su se na odraslu populaciju. Upravo zbog toga cilj ovoga rada je bio ispitati odnos osobina ličnosti u okviru Petofaktorskog modela s anksioznošću i depresivnošću adolescenata. Osim toga, cilj rada bio je i ispitati ulogu spola u tom odnosu. Naime, s obzirom na mnoga istraživanja koja potvrđuju spolne razlike u anksioznosti i depresivnosti adolescenata, osim provjere spolnih razlika u crtama ličnosti, anksioznosti i depresivnosti, zanimalo nas je moderira li spol odnose crta ličnosti s anksioznošću i depresivnošću.

Sudionici su bili učenici i učenice srednje škole (N = 171) koji su ispunili Upitnik petofaktorskog modela ličnosti BFI (Benet-Martinez i John, 1998; prema Kardum,

Gračanin i Hudek-Knežević, 2006), Skalu depresivnosti za djecu (Živčić, 1992) i Skalu dječje anksioznosti SKAN (Purić, 1992; prema Zaić, 2005).

Rezultati su pokazali da neuroticizam predviđa više anksioznih ( $\beta = .512$ ;  $p < .01$ ) i depresivnih simptoma ( $\beta = .419$ ;  $p < .01$ ), dok ekstraverzija ( $\beta = -.143$ ;  $p < .05$ ) i savjesnost ( $\beta = -.206$ ;  $p < .01$ ) predviđaju manje depresivnih simptoma. Također se pokazalo da djevojke iskazuju više anksioznih ( $t(169) = -3.45$ ;  $p < .01$ ) i depresivnih ( $t(169) = -2.42$ ,  $p < .05$ ) simptoma te ujedno i viši neuroticizam ( $t(169) = -3.31$ ;  $p < .01$ ) u odnosu na mladiće. Međutim, pokazalo se da spol moderira odnose crta ličnosti s depresivnošću. Kod mladića najveći učinak na depresivnost ima savjesnost ( $\beta = -.275$ ;  $p < .01$ ), zatim ugodnost ( $\beta = -.203$ ;  $p < .05$ ) i neuroticizam ( $\beta = .185$ ;  $p < .05$ ) dok kod djevojaka neuroticizam ( $\beta = .562$ ;  $p < .01$ ) i ekstraverzija ( $\beta = -.162$ ;  $p < .05$ ) predviđaju depresivne simptome. Rezultati sugeriraju da određene crte ličnosti pokazuju različite učinke na depresivnost kod djevojaka i mladića.

*Ključne reči:* anksioznost, depresivnost, crte ličnosti, adolescenti

## The relationship between personality traits, anxiety and depression in adolescents

There are many studies examining the relationship between anxiety and depression symptoms but the majority of them focus on adult samples. The aim of this study is to examine the relationship between Big Five personality traits, anxiety and depression in adolescents. Furthermore, the aim was also to examine the role of gender in that relationship. Given the amount of data showing higher prevalence of depression and anxiety in adolescent girls, besides examining gender differences in personality traits, anxiety and depression, we were interested in examining whether gender moderated the relationship of personality traits with anxiety and depression.

The sample consisted of 171 high school students who completed The Big Five Inventory (Benet-Martinez i John, 1998; according to Kardum, Gračanin i Hudek-Knežević, 2006), Children's Depression Inventory (Živčić, 1992) and Children's Anxiety Scale (Purić, 1992; according to Zaić, 2005).

The results have shown that neuroticism predict more symptoms of anxiety ( $\beta = .512$ ;  $p < .01$ ) and depression ( $\beta = .419$ ;  $p < .01$ ), whereas extraversion ( $\beta = -.143$ ;  $p < .05$ ) and conscientiousness ( $\beta = -.206$ ;  $p < .01$ ) predict fewer symptoms of depression. The results also indicate that girls show more anxiety ( $t(169) = -3.45$ ;  $p < .01$ ) and



depression ( $t(169) = -2.42, p < .05$ ) as well as higher neuroticism ( $t(169) = -3.31; p < .01$ ) compared to boys.

However, the results have also shown that gender moderates the relationship of personality traits with depression. In boys the greatest effect on depression was exhibited by conscientiousness ( $\beta = -.275; p < .01$ ), followed by agreeableness ( $\beta = -.203; p < .05$ ) and neuroticism ( $\beta = .185; p < .05$ ) while in adolescent girls neuroticism ( $\beta = .562; p < .01$ ) and extraversion ( $\beta = -.162; p < .05$ ) predicted depression. The results suggest that certain personality traits show different effect on depression in girls and boys.

*Keywords:* anxiety, depression, personality traits, adolescents

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### Istraživanje predstava studenata o didaktičkoj komunikaciji

Kao što pokazalo u praksi, efikasnost didaktičke komunikacije može zavisiti od niza činilaca. U prvom redu se mora ukazati na značaj nastavnog sadržaja. Potom, na efikasnost didaktičke komunikacije utiču njen sastav i organizacija. Istovremeno ne sme se zaboraviti da je jedan od ključnih faktora u procesu didaktičke komunikacije student koji ima određene predstave o interakciji sa nastavnicima. Ističemo da individualne predstave studenata, kao činilac u procesu didaktičke komunikacije, još uvek nisu dovoljno istražene pedagoškom psihologijom. Naše istraživanje je imalo za cilj da se prouče predstave studenata u vezi sa sledećim aspektima didaktičke komunikacije: vreme i prostor u kojima se komunikacija razvija; sadržaj komunikacije; organizacija procesa komunikacije; psihološke karakteristike interakcija; refleksije studenata prema didaktičkoj komunikaciji.

U istraživanju smo primenili metod Q-sortiranja. Ispitanici su bili studenti prve godine Kaluškog Državnog univerziteta Ciolkovski (mladići i devojke, prosečno su osamnaestogodišnjaci, ukupno 62 ljudi). Dve grupe ispitanika su imale zadatak da sastave opis najbolje (prema njihovom mišljenju) vrste didaktičke komunikacije izborom karakteristika koje su im bile ponuđene (na primer: «dajem prednost radu sa drugovima s iste godine studija»). Grupe su bile formirane pomoću

randomizacije. Računala se učestalost pominjanja svake od karakteristika. Kao rezultat smo opredelili rang za svaku karakteristiku.

Na osnovu analize dobijenih rezultata možemo da izvedemo sledeće zaključke: 1) Studenti naglašavaju da su od velikog značaja za didaktičku komunikaciju činioci kao što «vreme» i «prostor», 2) Studenti daju prednost takvoj vrsti nastavnog sadržaja koja je pristupačna za orjentisanje, povećava nivo znanja, te doprinosi reviziji životnog iskustva, 3) Naši ispitanici bi radije koristili nosioce informacije (knjige, Internet). U drugom redu je komunikacija sa nastavnicima i drugovima sa iste godine studija, 4) Više se ceni ona komunikaciona strategija nastavnika koja omogućava da se nastavni proces gradi kao neusiljen razgovor, 5) Reflektirajući prema značaju didaktičke komunikacije studenti je smatraju neophodnim delom nastavnog procesa.

Koherentnost odgovora u grupama ispitanika se računala uz pomoć Pirsonova koeficijenta koherentnosti (P). Kod prve grupe je dobijen rezultat  $P = .714$  ( $k = 2$ ,  $p < .01$ ,  $P_{max} = .816$ ) odnosno kod druge grupe  $P = .763$  ( $k = 2$ ,  $p < .01$ ,  $P_{max} = .816$ ). Inače, statistička analiza podataka prikazuje značajnu koherentnost odgovora. Naši ispitanici imaju čvrste predstave o karakteristikama efikasne didaktičke komunikacije. Imajući u vidu navedeno, imamo osnova da tvrdimo da dalja istraživanja predstava studenata o didaktičkoj komunikaciji mogu doprineti njenom efikasnom ostvarivanju.

*Ključne reči:* didaktička komunikacija, predstave studenata, interakcija

## The study of the student's notions about the educational communication

As the practice of education demonstrates , the educatory effect can be determinated by various factors. Firstly it must mention the content of education. Among other things the structure and the organization of the educational process have an influence upon the educatory effect. At the same time it is impossible to forget that the one of the key figures of the educational communication is the trainee who the notions about it has. It must ascertain the fact the trainee 's notions have not been investigated enough now by the psychology of education. Our study had for an object to research the student's notions about some aspects of educational communication, namely: time and location; content; organization; psychological characteristics of the interaction; student's reflections concerning the process of the educational communication.

The Q-sorting method was used. In the investigation took part the first year male- and female students of Tsyolkowski-University of Kaluga (at an average of 18 years old, in total 62 persons). Two groups of the students had to compose in their opinion the description of the best form of educational communication to having the proposed characteristics of it (for example: 'I prefer to study with the fellow students'). The groups were formed on the base of randomization. The frequency of a choice had been registered. As a result the characteristics of the educational communication were ranged.

On the base of empirical data it is possible to come to the conclusions like that: 1) The students underline the factors 'time and location' for educational communication very important are, 2) The content of educational communication which intelligible is and brings the educational qualifications up and contributes to the reevaluation of the first-hand experience is preferred, 3) The students would like to use the channel of information (books, Internet). The teacher and the fellow student are in the second position, 4) The teacher's communicative strategy which allows to carry out the lessons as the easy conversation is rated highly by the students, 5) To reflecting upon the educational communication the students consider it as the most important part of the educational process.

The coherence of the student's responses in the groups had been determined with the Pearson's quotient (P). In the first group as results it is  $P = .714$  ( $k = 2$ ,  $p < .01$ ,  $P_{max} = .816$ ) consequently in the second one  $P = .763$  ( $k = 2$ ,  $p < .01$ ,  $P_{max} = .816$ ). Thus the statistical analysis of data indicates the high coherence of the responses in the student's groups. Our probationers have the stable notions about the characteristics of the effective educational communication. Now then we have grounds for thinking that the following investigations of the student's notions about the educational communication are able to its progress promote.

**Keywords:** educational communication, notions about the educational communication, interaction.

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## Connectivity of the warning symptoms of stress and emotional health at adolescents

The aim of the research was to answer to the problem that there is connectivity of the emotional symptoms of stress and their effects to the emotional health at adolescents included in the secondary education and that the students from the male gender have more expressed tendency to be imposed to the indicative warning symptoms of stress of emotional/psychological character regarding the students of female gender. The sample contains 90 respondents who are all students in the second year of education in secondary school. Students differ by sex structure (group of 45 females and group of 45 male) equalized by age 16.5 all originating from urban environment and two parental family. In the research the measuring instruments have been used a) Questionnaire for warning and symptoms of stress and b) Questionnaire for adolescents Kindl Questionnaire (for age from 14-17). The questionnaire for warning and symptoms of stress contains 21 statement. From the questionnaire it can be noticed the presence of the indicative warning symptoms of stress their influence to the reduction of the school efficiency. Warning symptoms of stress of emotional character, anxiety, restlessness, tensity, sadness, apathy, depression, anger, irritability, hypersensitivity, hurt, feeling of helplessness, feeling of blame, feeling of shame, hate, losing of interest for current activities, changeability in mood. Warning symptoms of stress of physical character: pains in the body, change of body weight, headaches, psychosomatic disorders, cardiovascular changes, endocrinological changes, weakening of the immunological system, allergies and etc. Questionnaire for adolescents Kindl Questionnaire (at the age of 14-17) measures the quality of health and life of adolescents. The questionnaire is made of 24 items connected to six sub scales which measure dimensions physical health, emotional health, image for itself self concept, relation to the family, relation to the friend and relation to the school. All six sub scales correspond to the designed questionnaire. From the interpretation of the gained results for confirmation of the first hypothesis X<sup>2</sup> test of the table 2x2 as a statistic methodology of conclusion of importance of

differences. The obtained value ( $\chi^2(1, N = 90) = 10.0, p > .01$ ). For the second hypothesis the connectivity of variables is calculated by the C-coefficient of contingency with value .19 which is statistically appointed to the degree 0,05. It is calculated  $\chi^2$ -test of the table of contingency ( $\chi^2(4, N = 90) = 3.24, p < .05$ ). The research hypothesis are accepted as affirmative confirmed that there are differences between students that is, students from male gender have more expressed tendency to be exposed to the indicative warning symptom of stress of emotional character regarding the student from female gender and there is connectivity of the emotional symptoms of stress to the emotional health of adolescents.

**Keywords:** emotional symptoms, stress, emotional health, adolescents

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## Usvajanje sfere socijalnih kontakata adolescenta sa različitim predstavama o svom telesnom Ja

U današnje vreme jedan od najbitnijih faktora koji određuju položaj čoveka u društvu je njegova predstava o sopstvenom fizičkom izgledu odnosno usklađenost ove predstave sa opšteprihvaćenim kriterijumom lepote u društvu. Mnogi istraživači ističu da u formiranju identiteta i samosvesti vodeću ulogu igra adekvatna predstava o svom telesnom Ja, koja se smatra kompleksnim jedinstvom percepcija, stavova, procena u vezi sa fizičkim izgledom i funkcijom tela. Ova predstava dobija veliki značaj u doba puberteta, kada uz formiranje osećaja svog tela počinje razvoj samosvesti. Za adolescente koji imaju nezadovoljavajuće zdravstveno stanje, odnosno bolesne ili bolešljive adolescente, je predstava o svom telesnom Ja neobično važna jer su za ovakvu decu karakteristični uznemirenost, sklonost psihičkoj zavisnosti, duševni nemir zbog svoje neskladnosti i nedostatak socijalnih kontakata. Može se tvrditi da uz pomoć tela čovek određuje granice dozvoljavajući uticaje od strane drugih ili ne. U svom istraživanju smo pošli od pretpostavke da postoji korelacija između stepena usvajanja sfere socijalnih kontakata i predstave o svom telesnom Ja, pri čemu će se razlikovati pokazatelji

kod adolescenata nezadovoljavajućeg zdravstvenog stanja i adolescenata iz grupe «zdravi».

U istraživanju je uzelo učešća 50. adolescenata muškog i ženskog pola (14-16.godina), 30. iz grupe «zdravi» i 20. iz grupe adolescenata nezadovoljavajućeg zdravstvenog stanja. Primenjene su sledeće metode: Libkojev upitnik «Dijagnostika telesnog Ja», Vuljev i Rolov Test nezadovoljstva svojim telom (sa izborom boje), Rodžersov i Dajmondov Upitnik za socijalno-psihološku adaptaciju, Žiljev modifikovani Film-test te autorska metoda «Dijagnostika predstave telesnog Ja i učešća u socijalnim kontaktima».

Dobijeni su sledeći podaci: adolescenti nezadovoljavajućeg zdravstvenog stanja su ispoljili prema testovima neprihvatanje oblika telesnog Ja, nezadovoljstvo sopstvenim telom za razliku od dece iz grupe «zdravi» ( $U = 17.5$ ;  $p < .05$ ). Takođe, oni na osnovu skorova pokazuju nizak nivo socijalne adaptacije, prihvatanja sebe i drugih, te emocionalnog komfora za razliku od grupe «zdravi» ( $U = 175$ ;  $U = 137.5$ ;  $U = 134.5$ ;  $p < .05$ ). Zdravi adolescenti su prema metodikama u većoj meri socijalno angažovani te manje izolovani prilikom uspostavljanja socijalnih kontakata ( $U = 122$ ,  $U = 113.5$  pri  $p < .05$ ). Postoji korelacija između nezadovoljstva telom i izolacije ( $R_s = .42$ ;  $p < .05$ ) odnosno između nezadovoljstva telom, emocionalnog komfora i prihvatanja sredine ( $R_s = -.37$ ;  $R_s = -.39$ ;  $p < .05$ ).

*Ključne reči:* predstava o sopstvenim fizičkim osobinama, prihvatanje svog tela, nezadovoljstvo svojim telom, učešće u socijalnim kontaktima

### Adaptation in space of social interaction by teenagers with different image of Body Ego

Nowadays one of the major conditions determining position of the person in a society is representation of the person about their appearance, conformity of these representations to the standards of beauty accepted in a society. A lot of researchers notice that adequate image of Body Ego is played leading part in formation of identity and self-awareness. Image of Body Ego is complex of perception, attitudes, evaluations, representations connected with appearance and with functions of a body. Body Ego get the special status at teenage age, when development of all self-awareness begins with formation of own body's feeling. Body Ego has special importance at teenagers with the limited possibilities of health. These teenagers are anxiety, appear addictive behaviour, feeling about

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their clumsy movements, a lack of social contacts. It is possible to say that through body person establishes borders, passing or blocking influence from others.

In our research we have a start hypothesis that the measure of adaptation in space of social interaction will depend on image of Body Ego, and indicators will be various at teenagers with the limited possibilities of health and healthy teenagers. 50 male- and female teenagers (14-16 years old) participated in research (30 healthy teenagers and 20 teenagers with the limited possibilities of health). Following techniques have been used: Diagnostics of Body Ego by I. V. Lybko, the Color-A-Person body dissatisfaction Test by O. Vulya and S. Roll, a Questionnaire of socially-psychological adaptation by Carl R. Rogers, Rosalind F. Dymond, modified techniques Film-test Rene Zhilya, an author's technique Diagnostics of features of Body Ego and an inclusiveness in contact situations.

Findings are following: according the test scores teenagers with the limited possibilities of health mostly repulse their image of Body Ego, dissatisfaction of their appearance unlike healthy children ( $U = 17.5$ , at  $p < .05$ ). Also they show according the tests low level of adaptability, self-awareness, acceptance of others, emotional comfort unlike healthy children ( $U = 175$ ,  $U = 140$ ,  $U = 137.5$ ,  $U = 134.5$ , at  $p < .05$ ), healthy teenagers are included in a greater degree, less disconnection in interaction situations ( $U = 122$ ,  $U = 113.5$  at  $p < .05$ ). The correlation analysis has shown that there are significant communications between a dissatisfaction with a body and isolation ( $R_s = .42$ , at  $p < .05$ ), a dissatisfaction with a body and emotional comfort, acceptance of others ( $R_s = -.37$ ;  $R_s = -.39$ , at  $p < .05$ ).

**Keywords:** body self-perception, dissatisfaction of appearance, involvement in interaction



PSIHOLOGIJA LIČNOSTI



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## Amoral i uspeh na zadatku kockanja

Zadatak kockanja (Iowa Gambling Task, IGT) je konstruisan sa ciljem procene sklonosti ka riziku kroz simulaciju svakodnevnog donošenja odluka u situaciji neizvesnosti. Inicijalna ideja autora Zadataka kockanja je da će uspeh na ovom zadatku zavisiti od nekognitivnih, automatskih procesa koji su pod uticajem somatskih markera, signala koji dopiru iz organizma i u mentalnom aparatu bivaju manje ili više svesno doživljeni. Po pitanju povezanosti uspeha na Zadatku kockanja i bazične strukture ličnosti, dosadašnji nalazi dosledno ukazuju na povezanost između psihopatije i psihopatskih tendencija sa jedne strane i uspeha na ovom zadatku sa druge strane, odnosno da ispitanici sa izraženijim psihopatijom i psihopatskim tendencijama imaju slabiji učinak na ovom zadatku. U ovom istraživanju proverena je povezanost uspeha na Zadatku kockanja i amoralnosti kao bazične crte ličnosti. U istraživanju je učestvovalo 50 ispitanika ( $M = 33.92$ ,  $SD = 12.904$ ), 40% ženskog pola, za koje je crta amorala procenjena upitnikom AMRL9. Ispitanici su radili standardnu verziju Zadataka kockanja, koji se sastoji od 100 pokušaja izvlačenja karata iz četiri špila: A i B špil daju trenutnu veliku nagradu povremeno praćenu i velikom kaznom, dok izvlačenje karata iz C i D špila prati mala nagrada i povremeno mala kazna. Rezultati istraživanja ukazuju na to da ispitanici sa izraženijom amoralnošću postižu slabiji učinak na ovom zadatku ( $r = -.31$ ,  $p < .05$ ). Razmatrajući pojedinačne faktore amorala, samo je kod faktora brutalnošću podstaknuta amoralnost dobijena značajna negativna povezanost sa učinkom na zadatku ( $r = -.32$ ,  $p < .05$ ). Imajući u vidu usku povezanost amorala kao bazične dimenzije ličnosti i psihopatije ovakvi nalazi su u skladu sa dosadašnjim istraživanjima.

*Ključne reči: zadatak kockanja, IGT, amoral, psihopatija.*

## Amorality and Iowa Gambling Task performance

Iowa Gambling Task (IGT) was designed to assess risk taking tendencies by simulating real-life decision making under uncertainty. The main idea behind the task is that performance depends primarily on automatic processes which are

influenced by somatic markers. Previous findings regarding influence of personality factors consistently showed that IGT performance is related to psychopathy and psychopathic tendencies. The goal of current research was to explore the relationship between IGT performance and Amorality trait. Fifty participants ( $M = 33.92$ ,  $SD = 12.904$ ), 40% female, filled AMRL9 questionnaire and the standard version of IGT (100 trials with four decks: A and B bring higher rewards and penalties, while C and D bring small rewards and penalties). Results have shown negative correlation between amorality and IGT performance ( $r = -.32$ ,  $p < .05$ ) i.e. participants with lower amorality are more successful. Among different AMRL9 subscales, negative correlation was found only between Crudelia and IGT performance ( $r = -.31$ ,  $p < .05$ ). Obtained results are in a line with previous research.

Keywords: Iowa Gambling Task, IGT, amorality, psychopathy.

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## Individualne razlike u samoprocjenama reakcija na prijetnje

Teorija osjetljivosti na potkrepljenje (TOP) važna je neuropsihologijska teorija ličnosti koja pretpostavlja postojanje tri moždano-ponašajna sustava; Bihevioralni Aktivacijski Sustav (BAS), Bihevioralni Inhibicijski Sustav (BIS) i Sustav Bijega, Borbe i Blokiranja (BBBS). Teorija je nastala na temelju eksperimentalnih istraživanja na životinjama. Problemi u empirijskoj provjeri teorije vezani su za promjenu dominantne metodologije s eksperimentalnih na korelacijska istraživanja. U posljednjih nekoliko godina koristi se veći broj različitih upitnika u okviru TOP, a različiti autori polaze od različitih konceptualizacija osnovnih dimenzija teorije. Trenutno nedostaje empirijskih istraživanja koja bi ispitala odnose među tim upitnicima i njihove odnose s vanjskim kriterijima. Stoga, cilj ovog istraživanja je usporedba prediktivne valjanosti različitih upitnika TOP, u predviđanju obrambenih ponašanja u prijetećim situacijama. Istraživanje je provedeno na 1019 sudionika (od čega 412 muških) koji su putem online aplikacije ispunili Blanchardov scenarij prijetnji i obrambenih ponašanja, Upitnik ličnosti teorije osjetljivosti na potkrepljenje (UL-TOP), Upitnik osjetljivosti na potkrepljenje (UOP), BIS/BAS skale i Jackson-5. Hijerarhijskom regresijskom analizom je ispitana prediktivna valjanost

upitnika teorije osjetljivosti na potkrepljenje. Kriterijske varijable mjerene scenarijem prijetnji bile su tendencija izbjegavanja prijetnji i tendencija približavanju prijetnji. Uz kontrolu varijable spola i dobi, samoprocjene na upitnicima ličnosti predviđali su od 3 do 18% varijance samoprocjene obrambenih ponašanja na Blanchardovom scenariju, što se mjerilo promjenom koeficijenta multiple determinacije u drugom bloku prediktora. BIS/BAS skale su objasnile svega 4.5% tendencije izbjegavanja prijetnji, te 3.7% tendenciju približavanja prijetnji. Drugi upitnici su postigli značajno bolje rezultate, redom Jackson-5 18.5% i 16.7%, UOP 14.3% i 11.9% i UL-TOP 15.8 i 12.9% udjela varijance tendencija izbjegavanja prijetnji i tendencija približavanja prijetnji. Zaključak istraživanja je da noviji upitnici (UOP, UL-TOP i Jackson-5) koji se oslanjaju na revidiranu verziju teorije, uspješnije predviđaju obrambena ponašanja u situacijama koja potiču reakcije borbe i bijega u odnosu na BIS/BAS skale.

*Ključne reči:* obrambena ponašanja, teorija osjetljivosti na potkrepljenja, prijeteci scenariji

### Individual differences in self-reported reactions to threats

Reinforcement sensitivity theory (RST) is a relevant neuropsychological personality theory that postulates existence of three brain-behavioral systems Behavioral Activation System (BAS), Behavioral Inhibition System (BIS) and Fight/Flight/Freezing System (FFFS). Theory was founded upon experimental animal studies. The change of focus from experimental to correlational or self-report methodology has introduced problems to empirical theory testing. In the last several years, increasing number of different RST questionnaires has been used. However, there is a lack of consensus on operationalization of RST dimensions. Currently, there is lack of empirical studies examining relations between different RST questionnaires, as well as their relations to external criteria. Hence, the aim of this study is to compare predictive validity of different RST questionnaires in prediction of defensive reactions to threat. A total of 1019 participants (412 male) fulfilled Blanchard's threat and defensive behavior scenarios, Jackson-5, Reinforcement Sensitivity Questionnaire (RSQ), Reinforcement Sensitivity Theory-Personality Questionnaire (RST-PQ) and BIS/BAS scales. Predictive validity of RST questionnaires was examined by hierarchical regression analysis. Controlling for gender and age effects, self-reports in RST questionnaires have explained additional 3 to 18% of variance in defensive behaviors described in Blanchard's scenarios. To conclude, RSQ, RST-PQ and

Jackson-5, the questionnaires based upon revised RST, explained more variance of self-reported defensive behavior in fight/flight situations in compare to BIS/BAS scales.

Keywords: defensive behavior, reinforcement sensitivity theory, threat scenarios

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### Osobine ličnosti kao prediktori samoefikasnosti nastavnika

Istraživanje pretenduje da odgovori na pitanje kakve su relacije osobina ličnosti, kao relativno trajnih dispozicija osobe za ponašanje u različitim sferama života, i doživljaja samoefikasnosti kod nastavnika. Osnovni cilj istraživanja je utvrditi u kojoj meri je moguće predvideti varijabilitet samoefikasnosti nastavnika na osnovu osobina ličnosti iz psiholeksičkog modela “Velikih pet plus dva”, operacionalizovanih upitnikom VP+2. Pored osobina ličnosti, nacrt istraživanja kao prediktore uključuje i sociodemografske varijable pol, godine starosti i dužinu radnog staža nastavnika. Uzorak ispitanika čini 150 nastavnika zaposlenih u osnovnom i srednjem obrazovanju, starosti od 25 do 65 godina ( $AS = 39.43$ ), 54 muškaraca i 96 žena, sa radnim stažom 1 do 39 godina ( $AS = 11.38$ ). Dodatni cilj istraživanja predstavlja ispitivanje latentnog prostora Norveške skale samoefikasnosti nastavnika (Norwegian Teacher Self-efficacy scale – NTSEF, Skaalvik & Skaalvik, 2010), koja je izvorno namenjena merenju šest aspekata samoefikasnosti nastavnika, operacionalizovanih pomoću 24 stavke. Sprovedena faktorska analiza je pokazala da je najprihvatljivije jednofaktorsko rešenje, kojim se objašnjava 42.32% varijanse generalne samoefikasnosti nastavnika.

Za ocenu mogućnosti da osobine ličnosti predvide generalnu samoefikasnost nastavnika upotrebljena je hijerarhijska višestruka regresija nakon što je uklonjen uticaj pola, godina starosti i godina radnog staža na poslovima nastavnika. Pol, starost i dužina radnog staža su objasnile 2.2% varijanse samoefikasnosti nastavnika, a nakon uvođenja sedam dimenzija ličnosti u model, objašnjeno je 50.2% varijanse samoefikasnosti nastavnika ( $R^2 = .502$ ,  $F(10,139) = 14.02$   $p < .01$ ). Široke dimenzije ličnosti su objasnile 48% varijanse samoefikasnosti nastavnika ( $\Delta R^2 =$

.480,  $F(7,139) = 19.15$ ,  $p < .01$ ), a statistički značajni prediktori su bile samo dimenzije Ekstraverzije ( $\beta = .44$ ,  $p < .01$ ) i Neuroticizma ( $\beta = .21$ ,  $p < .01$ ). Kada se umesto sedam širokih dimenzija, u višestrukoj hijerarhijskoj analizi, koriste uže dimenzije ličnosti, prvi model koji obuhvata još i pol, godine starosti i dužinu radnog staža objašnjava 57.9% varijanse samoefikasnosti nastavnika ( $R^2 = .579$ ,  $F(19,130) = 9.412$ ,  $p < .01$ ), a uže dimenzije ličnosti objašnjavaju 55.7% varijanse ( $\Delta R^2 = .557$ ,  $F(16,130) = 10.751$ ,  $p < .01$ ). Statistički značajnim prediktorima samoefikasnosti nastavnika pokazale su se sledeće crte ličnosti: Anksioznost ( $\beta = .38$ ,  $p < .01$ ), Društvenost ( $\beta = .24$ ,  $p < .01$ ), Istrajnost ( $\beta = .294$ ,  $p < .05$ ), Bes ( $\beta = -.26$ ,  $p < .05$ ) i Pozitivna slika o sebi ( $\beta = .27$ ,  $p < .05$ ). Na osnovu svega rečenog može se zaključiti da se na osnovu poznavanja osobina ličnosti nastavnika može predvideti njihova samoefikasnost, a pritom su moćniji prediktori uže crte nego široke dimenzije ličnosti.

Rad je nastao u sklopu projekta 179002, koji finansira Ministarstvo prosvete, nauke i tehnološkog razvoja Republike Srbije.

*Ključne reči:* osobine ličnosti, Velikih pet plus dva, samoefikasnost, nastavnici, NTSEF

### Personality dimensions as predictors of self-efficacy of teachers

The main aim of the research is to determine to what extent it is possible to predict the variability of self-efficacy of teachers based on the personality dimensions from “Big five plus two” model, operationalized by the VP+2 questionnaire. The research design also included gender, age and length of service of teachers. The sample consisted of 150 teachers working in primary and secondary education, aged 25 to 65 years (mean = 39.43), 54 men and 96 women, with a length of service 1 to 39 years (mean = 11.38). Additional aim of the research was to examine the latent structure of Norwegian Teacher Self-efficacy scale - NTSEF (Skaalvik & Skaalvik, 2010), which was originally designed for measuring six aspects of self-efficacy of teachers. The conducted factor analysis showed that the most acceptable is one-factor solution, which explained 42.32% of variance of general self-efficacy of teachers.

The hierarchical multiple regression model where predictors were socio-demographic variables and seven dimensions of personality proved to be statistically significant ( $R^2 = .502$ ,  $F(10,139) = 14.02$ ,  $p < .01$ ). Gender, age and length of service of teachers explained only 2.2% of variance of teachers' self-efficacy while broad dimensions of personality explain 48% of the criteria, with the main partial

contribution of Extroversion and Neuroticism. When we used two steps hierarchical regression with personality traits instead of broad dimensions of personality, the model was also significant ( $R^2 = .579$ ,  $F(19,130) = 9.412$ ,  $p < .01$ ). If we include socio-demographic variables and personality traits, the model could explain 57.9% variance of teachers' self-efficacy while after having removed the effects of gender, age and years of service in the second step the model could explain 55.7% variance. Anxiety, Sociability, Persistence, Rage and Positive self-image proved to be significant predictors of general self-efficacy of teachers. Based on the above said, it is concluded that teachers' self-efficacy could be predicted by personality dispositions, and in doing so personality traits are more powerful than the broad dimensions of personality.

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**Keywords:** personality traits, Big five plus two, self-efficacy, teachers, Norwegian Teacher Self-efficacy scale

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### Povezanost strukture ličnosti i mehanizama odbrane

U prethodnim istraživanjima razvijen je upitnik za procenu ličnosti mladih uzrasta od 16 do 25 godina- BAPI. Rezultati su pokazali da upitnik diferencira tipove ličnosti čije karakteristike mogu predstavljati dispozicije za uspešniju socijalnu adaptaciju od onih adolescenata koji su pod rizikom za razvoj problema adaptacije. Ovo istraživanje imalo je za cilj da proveri povezanost strukture ličnosti mehanizama odbrane, polazeći od pretpostavke da je profil ličnosti, odnosno stepen "rizika" koji on predstavlja za uspešnu adaptaciju, povezan stepenom zrelostimehanizmima odbrane. Ispitivanje je obavljeno na prigodnom uzorku studenata oba pola ( $N = 128$ ), prosečnog uzrasta 22 godine ( $M = 22.29$ ;  $SD = 4.65$ ). Crte ličnosti procenjene su upitnikom BAPI (Džamonja i sar., 2014) koji se zasniva na Klonindžerovom Psihobiološkom modelu ličnosti, dok je za procenu mehanizama odbrane primenjen posebno konstruisan upitnik MOD (Džamonja i sar., 2015). Oba upitnika

su u prethodnim istraživanjima potvrdila solidne metrijske karakteristike. Na osnovu analize latentnih profila, pri čemu entropija iznosi .84, identifikovane su tri profila ličnosti adolescenata koji su uslovno nazvani: neadaptirani sa destabilizujućom strukturom temperamenta i manje zrelim karakterom (niži skorovi na ovim skalama); stabilno-socijalizovani sa uravnoteženom strukturom temperamenta i zrelijim karakterom i nestabilno-socijalizovani sa destabilizujućim temperamentom i zrelijim karakterom. Multivarijatna analiza varijanse ukazuje da postoje statistički značajne razlike između ovih grupa u odnosu na mehanizme odbrane,  $\Lambda$  iznosi .41,  $F(28,224) = 4.43$ ,  $p < .001$ .

Najveća razlika između grupa ispoljava se na nezrelim mehanizmima odbrane: splittingu,  $F(2,125) = 23.41$ ,  $p < .001$ ,  $\eta^2 = .27$ , reaktivnoj formaciji,  $F(2,125) = 22.29$ ,  $p < .001$ ,  $\eta^2 = .26$  i pasivnoj agresiji  $F(2,125) = 17.79$ ,  $p < .001$ ,  $\eta^2 = .22$ , poništavanju  $F(2,125) = 13.40$ ,  $p < .001$ ,  $\eta^2 = .18$  i fantaziji  $F(2,125) = 12.85$ ,  $p < .001$ ,  $\eta^2 = .17$ . U radu se opisuju profili ličnosti i njihove potencijalne implikacije na adaptaciju i diskutuje se njihova specifična povezanost sa mehanizama odbrane. S obzirom da su rezultati dobijeni na nekliničkom uzorku, očekujemo da će dalja istraživanja na kliničkom uzorku, koja su u toku, još specifičnije odrediti ove veze.

*Ključne reči:* crte ličnosti, mehanizmi odbrane, temperament, karakter

## Relationship between the structure of personality and defense mechanisms

In previous research we have developed a questionnaire for assessing personality of young people aged 16 to 25-year-BAPI. Results showed that questionnaire differentiated successfully profiles of personality that could be associated with socialized adolescents from those who are at risk for developing adaptation problems. This research was aimed to test relation between structure of personality and mechanisms of defense, based on hypothesis that the profile of personality, e.g. the level of risk that it represents for successful adaptation correlate with the level of maturity of defense mechanisms. The study was conducted on a sample of students of both sexes ( $N = 128$ ), mean age 22 years ( $M = 22.29$ ;  $SD = 4.65$ ). We have applied BAPI personality questionnaire (Džamonja et al., 2014) which is based on Cloninger's Psychobiological model of personality, while the assessment of defense mechanisms was done by the MOD questionnaire (Džamonja et al., 2015). Both questionnaires in previous studies confirmed solid psychometric properties. Based on the analysis of latent profiles, where entropy is

.84, we identified three profiles of adolescents: unadapted with destabilizing temperament structure and less mature character (lower scores on character traits); stable-socialized with balanced temperament and more mature character and unstable-socialized type with destabilizing temperament and more mature character. Multivariate analysis of variance indicated that there were statistically significant differences between the groups in relation to the defense mechanisms,  $\Lambda$  is .41,  $F(28,224) = 4.43$ ,  $p < .001$ . The biggest difference between the groups is expressed on immature defense mechanisms: splitting,  $F(2,125) = 23.41$ ,  $p < .001$ ,  $\eta^2 = .27$ , reactive formation,  $F(2,125) = 22.29$ ,  $p < .001$ ,  $\eta^2 = .26$  and passive aggression  $F(2,125) = 17.79$ ,  $p < .001$ ,  $\eta^2 = .22$ , undoing  $F(2,125) = 13.40$ ,  $p < .001$ ,  $\eta^2 = .18$  and fantasies  $F(2,125) = 12.85$ ,  $p < .001$ ,  $\eta^2 = .17$ . In the paper, we describe the personality profiles and their possible implication to adaptation and discuss their specific relation with defense mechanisms. Given that the results obtained in non-clinical sample, we expect that further research on the clinical sample, which are ongoing, confirm and specify these findings.

*Keywords:* personality traits, defense mechanisms, temperament, character

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### Provera nove koncepcije bazičnih psiholoških potreba

Teorija bazičnih psiholoških potreba pretpostavlja da svaka individua ima tri urođene psihološke potrebe - za autonomijom, kompetencijom i povezanošću. Zbog problema u merenju datih dimenzija nastala je nova koncepcija koja zadovoljenje i osujećenje tri potrebe posmatra kao zasebne dimenzije. Stoga, cilj ovog istraživanja je provera strukture bazičnih psiholoških potreba prema pretpostavci nove koncepcije koja predlaže šestodimenziono rešenje u okviru kojeg se nalaze i zadovoljenje i osujećenje tri potrebe. Na prigodnom uzorku od 316 ispitanika oba pola (60% ispitanica) uzrasta od 16 do 18 proverena je struktura Upitnika za merenje bazičnih psiholoških potreba. Upitnik je preveden na srpski jezik za potrebe ovog istraživanja i sadrži 24 stavke sa petostepenim uređenim kategorijama (ne)slaganja od kojih po četiri ajtema pripadaju svakoj od dimenzija. Prilikom analize pristupljeno je preporučenom dvostepenom modelu uz



konvergenciju dve vrste faktorske analize. Sprovedene su eksploratorna faktorska analiza prvog i drugog reda i Promax rotacija uz konsultovanje tri različita kriterijuma za određivanje broja značajnih faktora i konfirmatorna faktorska analiza za dodatnu proveru predloženih modela. Konsultovani kriterijumi ukazali su na različita, ali interpretabilna rešenja kada je u pitanju broj faktora. Hornova paralelna analiza je ukazala na tri, dok su kriterijumi jedinice i Cattellov empirijski kriterijum ukazali na šest faktora. Konfirmatornom faktorskom analizom dodatno su proverena oba predložena modela iz EFA. Na osnovu rezultata može se uočiti da parametri saglasnosti prema RMS nisu prihvatljivi ni za jedan od dva modela ( $>.10$ ), a da su drugi parametri bolji za rešenje od šest faktora ( $\chi^2/df = 2$ ; RMSEA = 0.05; GFI = 0.0, AGFI = 0.8) te se stoga šestofaktorsko rešenje može uzeti kao povoljnije, ali uz određenu rezervu i potrebu za dodatnom proverom. Zadržanih šest Promax-faktora objašnjava 58% ukupne varijanse i imenovani su kao Osujećenje i Zadovoljenje potrebe za autonomijom, povezanošću i kompetencijom. Faktorskom analizom drugog reda izolovana su dva smisljena faktora koja predstavljaju Osujećenje i Zadovoljenje svih potreba i objašnjavaju 56% objašnjene varijanse ukupnog prostora merenja bazičnih psiholoških potreba. Prema ovim rezultatima može se zaključiti da je nova koncepcija bolja od prvobitne i da je faktorska struktura u skladu sa teorijskom pretpostavkom o bazičnim psihološkim potrebama.

*Ključne reči:* bazične psihološke potrebe, adolescenti, struktura, autonomija, kompetencija, povezanost

### Testing new concept of basic psychological needs

The theory of basic psychological needs measures three innate psychological needs - for autonomy, competence and relatedness. Due to measurement problems new concept of both needs satisfaction and frustration was created. Therefore, the aim of this study was to verify the structure of the new six-dimensional concept. Study involved 316 high school students of both sexes (60% females) aged from 16 to 18. Serbian version of Basic Psychological Need Satisfaction & Frustration Scale, containing 24 items, was used. Analysis included both exploratory and confirmatory factor analysis in order to achieve the best solution. In EFA three criteria showed different but meaningful factorial solutions. Horn's parallel analysis isolated three, while scree and eigenvalue isolated six statistically significant factors. Both proposed models were tested with CFA. According to results, none of the models fitted well according to RMS ( $>.10$ ), but

other parameters showed favorable solution for a six-factor model ( $\chi^2 / df = 2$ ; RMSEA = 0.05; GFI = 0.0, AGFI = 0.8). Six Promax-factors explaining 58% of the variance were named Satisfaction and Frustration of each of three psychological needs. Higher order factor analysis isolated two factors named Frustration and Satisfaction of all needs and explain 56% of variance. According to these results it can be concluded that the new concept is better than the original, and that the factor structure is in accordance with theoretical assumption of basic psychological needs.

**Keywords:** basic psychological needs, adolescents, structure, autonomy, competence, relatedness



PSIHOLOGIJA NASILJA

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## Kontekstualni i dispozicioni činioci nasilnog ponašanja prema deci

Porodično nasilje nad decom predstavlja ozbiljan društveni problem koji se u različitim vidovima javljao tokom čitave ljudske istorije. Iako se radi o pojavi koja se odvija na mikrosocijalnom nivou, uzroci i posledice nasilja nad decom moraju se sagledati iz šire perspektive, kako zbog prevencije ove vrste nasilja, tako i zbog boljeg razumevanja samog fenomena. Cilj ovog rada usmeren je ka ispitivanju relacija kontekstualnih (negativni životni događaji) i dispozicionih (osobine ličnosti) činilaca, kao i njihovih interakcija, sa fizičkim i emocionalnim oblicima nasilnog ponašanja prema deci. Za ispitivanje osobina ličnosti primenjena je skraćena verzija upitnika Velikih pet plus dva (VP+2-70). Za ispitivanje negativnih životnih događaja primenjen je Upitnik životnih događaja (UŽD), a za ispitivanje oblika nasilja u porodičnim relacijama je primenjen Upitnik o nasilnom ponašanju (UNP). Uzorak je činilo 324 ispitanika iz opšte populacije koji imaju decu (79.3% muških), starosti od 19 do 65 godina. Prosečna starost ispitanika je iznosila 42.98 godina ( $SD = 11.91$ ). Kako bi se ispitale relacije osobina ličnosti, negativnih životnih događaja i njihovih interakcija sa jedne strane, i oblika nasilja prema deci sa druge strane, primenjene su dve hijerarhijske binarne logističke regresione analize. Prediktorski skup u analizama činili su negativni životni događaji (1. korak), osobine ličnosti (2. korak) i interakcije negativnih životnih događaja i osobina ličnosti (3. korak). Rezultati ukazuju da značajne doprinose predikciji fizičkog nasilja prema deci ostvaruju negativni životni događaji ( $B = .01$ ,  $Exp(B) = 1.11$ ,  $p < .01$ ), kao i dimenzija Neuroticizam ( $B = .06$ ,  $Exp(B) = 1.06$ ,  $p < .01$ ), oba u pozitivnom smeru. Kao najbolji prediktori emocionalnog nasilja prema deci, pokazali su se negativni životni događaji ( $B = .06$ ,  $Exp(B) = 1.06$ ,  $p < .05$ ), ali takođe i interakcija negativnih životnih događaja sa dimenzijom Negativna valenca ( $B = .02$ ,  $Exp(B) = 1.02$ ,  $p < .01$ ). Interakcija upućuje na to da osobe sa višom Negativnom valencom i većim brojem negativnih životnih događaja ispoljavaju više emocionalnog nasilja prema deci. Rezultati ukazuju na zaključak da je nasilno ponašanje prema deci važno posmatrati iz interakcionističke perspektive kontekstualnih i dispozicionih činioca u slučaju emocionalnog nasilja, dok u slučaju fizičkog nasilja prema deci ovi činioci imaju podjednako važnu ulogu.

Rad je nastao u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS (ON179006) i Pokrajinskog sekretarijata za nauku i tehnološki razvoj AP Vojvodine RS (projekat “Nasilje u savremeneom društvu – dispozicionalni i kontekstulani činioci”).

*Ključne reči:* nasilje prema deci, fizičko nasilje, emocionalno nasilje, negativni životni događaji

## Contextual and dispositional factors of violent behavior towards children

Domestic violence towards children is a serious social problem in different aspects throughout human history. Although it is a phenomenon that takes place at the micro level, causes and consequences of violence against children must be viewed from a wider perspective in order to prevent this kind of violence, but also for a better understanding of the phenomenon. The aim of this study is to examine the relation of contextual (negative life events) and dispositional (personality traits) factors, and their interactions with the physical and emotional forms of violent behavior towards children. The short version of the Big five plus two questionnaire (BF+2-70) was applied for measuring the personality traits. Examination of the space of domestic violence was carried out using the Violent Behavior Questionnaire among adults (VBQ), and the Questionnaire of Life Events (QLE) was administered for getting an information about negative life events. The research involved 324 participants (79.3% male) from the general population who have children, aged 19 to 65 years. The average age of respondents was 42.98 years ( $SD = 11.91$ ). To examine the relation of personality traits, negative life events and their interactions with one hand, and the forms of violence against children on the other hand, there were applied two hierarchical binary logistic regression analysis. The set of predictors in the analysis consisted of negative life events (Step 1), personality traits (Step 2) and the interaction of negative life events and personality traits (Step 3). Results indicate that significant contributions to the prediction of physical violence against children generate negative life events ( $B = .01$ ,  $\text{Exp}(B) = 1.11$ ,  $p < .01$ ), as well as the dimensions Neuroticism ( $B = .06$ ,  $\text{Exp}(B) = 1.06$ ,  $p < .01$ ), both in the positive direction. In the case of emotional violence against children, as the best predictors showed a negative life events ( $B = .06$ ,  $\text{Exp}(B) = 1.06$ ,  $p < .05$ ), but also the interaction of negative life events with Negative valence dimension ( $B = .02$ ,  $\text{Exp}(B) = 1.02$ ,  $p < .01$ ). The interaction indicates that people with higher Negative valence and a number of negative life event exert more emotional

violence against children. Results show that violent behavior towards children is important to consider from the interactional perspective of contextual and dispositional factors in the case of emotional violence, while in the case of physical violence towards children these factors have an equally important role.

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**Keywords:** violence towards children, physical violence, emotional violence, negative life events

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### Nasilje prema roditeljima: atribuiranje odgovornosti za nasilje i dimenzije agresivnosti

Agresivnost predstavlja dominantan prediktor nasilja, ali pored ove osobine, kao važna karakteristika učestvovanja u nasilnoj interakciji, izdvaja se i percepcija uzročnika nasilnog ponašanja, odnosno pripisivanje odgovornosti za javljanje nasilja sebi ili drugome. Cilj ovog istraživanja je utvrđivanje relacija između dimenzija agresivnosti i nasilnikove percepcije uzročnosti nasilja sa jedne strane, i učestalosti nasilja prema roditeljima s druge strane. Uzorak je činilo 300 ispitanika (201 muškog pola) iz opšte populacije, starosti od 18 do 65 godina ( $AS = 36.44$ ,  $SD = 12.85$ ). Samoprocena nasilja i atribuiranja nasilja mereni su Uпитnikom nasilnog ponašanja kod odraslih (UNP), dok su dimenzije agresivnosti merene Uпитnikom agresivnosti BODH (Bes, Osvetoljubivost, Dominacija i Hostilnost). Primenjena je hijerarhijska binarna logistička regresija u kojoj je kriterijum bilo fizičko nasilje prema roditeljima u jednom, odnosno emocionalno nasilje u drugom slučaju. U prvom bloku je binarni prediktor bio atribuiranje određene forme nasilja u skladu sa kriterijumom (procena da je nasilje izazvao ispitanik ili njegov roditelj), u drugom su prediktori bile dimenzije agresivnosti, i u trećem bloku su uvedene interakcije atribuiranja i dimenzija agresivnosti. Rezultati pokazuju da fizičko nasilje prema

roditeljima značajno predviđa procena da su roditelji odgovorni za javljanje nasilja ( $\text{Exp}(B) = 0.13$ ), potom dimenzije Bes ( $\text{Exp}(B) = 1.95$ ) i Hostilnost ( $\text{Exp}(B) = 0.51$ ), pri čemu Hostilnost ostvaruje značajnu interakciju sa atribuiranjem ( $\text{Exp}(B) = 3.15$ ). Interakcija upućuje na to da se značajna predikcija fizičkog nasilja na osnovu Hostilnosti dobija samo kod osoba koje procenjuju da su roditelji izazvali nasilno ponašanje. U slučaju emocionalnog nasilja prema roditeljima, značajne efekte ostvaruju samo atribuiranje emocionalnog nasilja ( $\text{Exp}(B) = 0.11$ ) i dimenzija Bes ( $\text{Exp}(B) = 1.83$ ), u očekivanom pozitivnom smeru. Rezultati ukazuju na to da pristrasnosti u pripisivanju odgovornosti za nasilje i afektivni aspekti agresivnosti, odn. reaktivna agresivnost, imaju značajnu ulogu u oblikovanju nasilne interakcije sa roditeljima. Pri tome, fizičko nasilje prema roditeljima je važno posmatrati u kontekstu interakcije osobina i pristrasnosti u percepciji uzročnika nasilja.

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*Ključne reči:* nasilje prema roditeljima, atribuiranje nasilja, agresivnost, fizičko nasilje, emocionalno nasilje

### Violence towards parents: Responsibility attribution and aggressiveness dimensions

Aggressiveness is the main predictor of violence. Besides this personality trait, the important factor of engaging in violence interaction is also attribution of responsibility for violent behavior, e.g. degree to which someone assumes that provokes violence. The aim of this research was to examine relationships between aggressiveness dimensions and responsibility attribution about violence on the one side, and frequency of violence towards parents, on the other side. The sample included 300 participants (201 of male) from general population, aged 18 to 65 years ( $M = 36.44$ ,  $SD = 12.85$ ). Self-perception of violence and attribution were measured by the Violent Behavior Questionnaire among adults (VBQ), while aggressiveness dimensions were measured by the Aggressiveness questionnaire AVDH (Anger, Vengefulness, Domination and Hostility). Hierarchical logistic regression analysis was used, with physical and emotional violence towards parents as criterion in two separate analysis. In the first block, binary predictor was responsibility attribution (to oneself or to the parents) about violence form which

was the criterion; aggressiveness dimensions were predictors in the second block; and interactions between attribution and aggressiveness dimensions were included in the third block. Results showed that parents-attribution of blame ( $\text{Exp}(B) = 0.13$ ) and dimensions of Anger ( $\text{Exp}(B) = 1.95$ ) and Hostility ( $\text{Exp}(B) = 0.51$ ) had significant contribution to physical violence towards parents, whereby Hostility had significant interaction with attribution ( $\text{Exp}(B) = 3.15$ ). This interaction indicated that Hostility has significant effect on physical violence only among those who blame parents for violence. In the case of emotional violence towards parents, significant effects have only parents-attribution of blame ( $\text{Exp}(B) = 0.11$ ) and Anger dimension ( $\text{Exp}(B) = 1.83$ ) in expected positive direction. Results show that biases in attribution responsibility about occurrence of violence and affective or reactive aggressiveness had important role in violence interaction with parents. Thereby, physical violence is important to consider in the context of interaction between personality traits and biases in responsibility attribution.

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**Keywords:** violence towards parents, responsibility attribution, aggressiveness, physical violence, emotional violence

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## Predictors of psychological dating violence victimization and perpetration in adolescents

Adolescent dating violence is an increasing public health problem and a relatively new area of adolescent psychology inquiry. Studies have found that 16% to 90% of adolescents have experienced some form of violence from a dating partner. The study objective was to examine the pattern and predicting factors for psychological dating violence victimization and perpetration in male and female



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adolescents. Based on a comprehensive review of research on adolescent dating violence within the social-ecological framework, several potential predictors were selected and included in the tested model.

The convenient sample of 410 students (48% male and 52% female) from general/vocational high schools in Skopje at average age of 17.5 years, responded to a self-administered questionnaire composed of 7 different scales. The assessed Cronbach's Alphas of the scales were in the range from .72 to .80. Both personal and parental informed consent (for adolescents below 18 years) were provided prior to administering the instruments. Before performing the analysis, both female and male participants were divided into two groups (milder and higher) according to the level of self-reported incidences of psychological victimization and perpetration.

A logistic regression analysis was conducted to predict psychological dating violence victimization and perpetration in female and male adolescents in relation with substance use, self-esteem, aggressiveness, conflict resolution skills, gender stereotypes and acceptance of violence as predictors. A test of the full model against a constant only model was statistically significant, indicating that the following predictors: lower self-esteem ( $r = -.08$ ,  $p < .05$ ), aggressiveness ( $r = .03$ ,  $p < .05$ ), and acceptance of violence ( $r = .10$ ,  $p < .05$ ) increase one time more the likelihood for higher level of psychological dating violence victimization in male adolescents. Higher level of psychological dating violence victimization in female adolescents was significantly predicted by: substance use ( $r = .16$ ,  $p < .05$ ) and acceptance of violence ( $r = .22$ ,  $p < .01$ ) only. Likewise, the group with higher level of psychological dating violence victimization in male adolescents is significantly distinguished by following predictors: substance use ( $r = .19$ ,  $p < .05$ ) and acceptance of violence ( $r = .29$ ,  $p < .01$ ), while in female adolescents only the predictor acceptance of violence ( $r = .35$ ,  $p < .01$ ), increase the likelihood for 1.4 for times more for experiencing higher level of psychological dating violence victimization.

These findings suggest that training in coping with low self-esteem and anger, endorsement of attitudes against violence and greater support for the education of substance abuse risks may be effective strategies for preventing and reducing interpersonal violence among adolescents.

**Keywords:** psychological dating violence victimization and perpetration, adolescents, predictors.

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## Rizična ponašanja adolescenata, viktimizacija u obitelji i internalizirani problemi

Dosadašnja istraživanja utvrdila su povezanost između doživljavanja nasilja u obitelji i problema u psihosocijalnom razvoju djece. Cilj ovog rada bio je ispitati doprinos viktimizacije djece u obitelji razvoju njihovih rizičnih ponašanja, točnije normativnih nepoželjnih ponašanja, zlouporabe psihoaktivnih tvari i nasilničkog ponašanja. Nadalje, cilj je bio ispitati potencijalni dodatni doprinos internaliziranih problema te njihovu medijacijsku ulogu u odnosu između viktimizacije u obitelji i rizičnih ponašanja adolescenata.

Istraživanje je provedeno na uzorku od 2128 sudionika, učenika sedmog razreda osnovne škole (45.7%) te drugog (16.0%) i četvrtog (38.3%) razreda srednje škole, u dobi od 12 do 21 godine (54.3% djevojaka). Za ispitivanje kriterijskih varijabli korištene su odgovarajuće subskale modificiranog Upitnika samoiskaza rizičnog i delinkventnog ponašanja (SRDP, Ajduković, Ručević i Šincek, 2007). Instrumentarij je također sadržavao pitanja o sociodemografskim podacima, Modificirani upitnik za procjenu incidencije i prevalencije zlostavljanja i zanemarivanja djece (ISPCAN i UNICEF) te Upitnik samoprocjene ponašanja mladih (Achenbach, 1991).

Hijerarhijske regresijske analize provedene su sa svakom od kriterijskih varijabli te su korišteni prediktori najbolje objasnili normativna nepoželjna ponašanja. Doživljavanje nasilja u obitelji značajan je prediktor svih rizičnih ponašanja kod adolescenata. Internalizirano ponašanje pokazalo se parcijalnim medijatorom odnosa između doživljavanja određenih oblika nasilja u obitelji i pojedinih rizičnih ponašanja sudionika. U prezentaciji će biti prikazana raširenost rizičnih ponašanja mladih te će naglasak biti na ulozi koju viktimizacija u obitelji i internalizirani problemi mogu imati u razvoju normativnih nepoželjnih ponašanja, zlouporabe psihoaktivnih tvari i nasilničkog ponašanja adolescenata. Dodatno će biti prikazane dobivene interakcije između prediktora te će se razmotriti implikacije dobivenih rezultata.

**Ključne reči:** adolescenti, rizična ponašanja, internalizirani problemi, viktimizacija u obitelji

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## Risk behavior of adolescents, victimization in the family and internalized problems

Previous studies have established a correlation between the experience of domestic violence and problems in the psychosocial development of children. The aim of this study was to investigate the contribution of the victimization of children in the family to the development of their risk behaviors, namely normative undesirable behavior, substance abuse and violent behavior. Furthermore, the aim was to examine the potential additional contribution of internalizing problems and their mediating role in the relationship between victimization in the family and adolescent risk behavior.

The study was conducted on a sample of 2128 participants, students of the seventh grade of primary school (45.7%) and second (16.0%) and fourth (38.3%) grade of secondary school, aged 12-21 years (54.3% of girls). Relevant subscales of the modified Self-report questionnaire of risk and delinquent behavior (SRDP, Ajduković, Ručević and Šincek, 2007) were used for testing criterion variables. The instrument also contained questions about sociodemographic data, the modified questionnaire for assessing the incidence and prevalence of abuse and neglect of children (ISPCAN and UNICEF) and Youth Self-Report (Achenbach, 1991).

Hierarchical regression analyses were conducted with each of the criterion variables and the predictors used best explained normative undesirable behaviors. Experience of domestic violence is a significant predictor of all risk behaviors in adolescents. Internalized behavior proved to be a partial mediator of the relationship between experiencing some forms of violence in the family and certain risk behaviors of participants. The prevalence of youth risk behaviors will be shown in the presentation and the emphasis will be on the role that victimization in the family and internalized problems can play in the development of normative undesirable behavior, substance abuse and violent behavior of adolescents. In addition, significant interactions between the predictors will be presented and implications of the results will be considered.

**Keywords:** adolescents, risk behaviors, internalized problems, victimization in the family

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## Rodne razlike u oblicima agresije učenika starijih razreda osnovne škole

Agresija se, polazeći od načina njenog ispoljavanja, određuje kao stabilna tendencija ka hostilnosti, doživljavanju besa i upuštanju u fizičke i verbalne konflikte. Ipak, načini na koje deca ispoljavaju agresiju se menjaju tokom razvoja, tako da sazrevanjem i izgrađivanjem kompetencija mladi prelaze sa otvorenog ispoljavanja agresije ka prikivenim, latentnim formama. Osim toga, istraživanja ukazuju da dečaci i devojčice koriste različite forme ispoljavanja agresije, u smislu da su dečaci skloniji direktnim, a devojčice indirektnim oblicima agresije.

U cilju ispitivanja rodni razlika u ispoljavanju manifestnih i latentnih formi agresije učenika osnovnih škola, realizovano je, tokom aprila 2015. godine, istraživanje u osam beogradskih osnovnih škola. Podaci su prikupljeni na uzorku od 480 učenika osmog razreda (51% devojčice, 49% dečaci) primenom Bas-Perijevog upitnika agresije (Buss Perry Aggression Questionnaire – BPAQ: Buss & Perry, 1992) koji sadrži 29 stavki na sedmostepenoj skali Likertovog tipa, raspoređenih u četiri supskale: fizička agresija ( $\alpha = .76$ ), verbalna agresija ( $\alpha = .55$ ), bes ( $\alpha = .72$ ) i hostilnost ( $\alpha = .78$ ).

Rezultati istraživanja pokazuju da su hostilnost ( $M = 4.20$ ,  $SD = 1.34$ ) i verbalna agresija ( $M = 4.10$ ,  $SD = 1.15$ ) najučestalije forme agresije učenika. U nešto manjoj meri učenici svoju agresiju ispoljavaju kroz bes ( $M = 3.71$ ,  $SD = 1.25$ ), dok je najmanje zastupljeno pokazivanje fizičke agresije ( $M = 3.18$ ,  $SD = 1.22$ ). Postojanje statistički značajnih rodni razlika zabeleženo je kod svih oblika agresije, pri čemu su devojčice, u odnosu na dečake, verbalno agresivnije,  $t(478) = -3.720$ ,  $p < .001$ , hostilnije,  $t(476) = -2.754$ ,  $p < .01$ , i više ispoljavaju bes  $t(478) = -4.493$ ,  $p < .05$ , dok su dečaci fizički agresivniji od devojčica,  $t(478) = 2.600$ ,  $p < .01$ .

Dobijeni rezultati o rodni razlikama u ispoljavanju različiti formi agresije idu u prilog opravdanosti kreiranja rodnoosenzitivni edukativni preventivni programa, u kojima bi fokus delovanja kod dečaka bio na ovladavanju bihevioralnim

tehnikama kontrole agresije, dok bi kod devojčica akcenat bio na kognitivnoj i emocionalnoj obradi i kontroli agresije.

*Ključne reči:* agresija, manifestna i latentna agresija, Bas-Perijev upitnik agresivnosti, učenici

## Gender differences in forms of aggression in higher grades of elementary school students

Aggression, in its manifestation, is defined as a stable tendency toward hostility, experiencing anger and engaging in physical and verbal conflicts. However, the ways in which children exhibit aggression changes during the process of their development. Therefore, with the maturing and building up competencies, young people change from the open manifestation of aggression towards a concealed, latent forms. In addition, research suggests that boys and girls use different forms of manifestation of aggression, in the sense that the boys are more prone to direct and girls to more indirect forms of aggression.

In order to examine gender differences in the expression of visible and latent forms of aggression in elementary school students, in April 2015, a research was implemented in eight primary schools in Belgrade. Data were collected on a sample of 480 eighth grade students (51% girls, 49% boys) using the Buss Perry Aggression Questionnaire (Buss Perry Aggression Questionnaire – BPAQ: Buss & Perry, 1992), which contains 29 items on the seven-point Likert scale, distributed in four subscales: physical aggression ( $\alpha = .76$ ), verbal aggression ( $\alpha = .55$ ), anger ( $\alpha = .72$ ) and hostility ( $\alpha = .78$ ).

The research results show that hostility ( $M = 4.20$ ,  $SD = 1.34$ ) and verbal aggression ( $M = 4.10$ ,  $SD = 1.15$ ) are the most common form of aggression in students. In a lesser degree the students express their aggression through anger ( $M = 3.71$ ,  $SD = 1.25$ ), while the least represented are the displays of physical aggression ( $M = 3.18$ ,  $SD = 1.22$ ). The existence of statistically significant gender difference was observed in all forms of aggression, in which the girls are, compared to boys, more verbally aggressive,  $t(478) = -3,720$ ,  $p < .001$ , more hostile,  $t(476) = -2,754$ ,  $p < .01$ , and they exhibit more anger  $t(478) = -4,493$ ,  $p < .05$ , while the boys were more physically aggressive than girls,  $t(478) = 2.600$ ,  $p < .01$ .

The results on gender differences in the manifestation of different forms of aggression are in favor of justification of creating a gender-sensitive educational prevention programs, in which the focus of action in boys would be the acquisition

of behavioral techniques of aggression control, while in girls the focus would be on cognitive and emotional processing and aggression control.

Keywords: aggression, manifest and latent aggression, Buss-Perry Aggression Questionnaire, students



PSIHOLOGIJA PREDRASUDA

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## Social attitudes as mediators of the link between personality and militant extremists thinking pattern

Militant Extremist Mind Set (MEMS) represents a thinking pattern distinctive for ideological extremists and terrorists. However, the empirical data have shown that it exists in the general population to some extent as well. MEMS is operationalized via three factors: Proviolence (advocating violence as a means of achieving political goals), Vile World (belief that the world is an unjust and immoral place, heading for disaster) and Divine Power (using God or supernatural powers as a rationale for extremist acts). Previous research has indicated that MEMS factors are related to schizotypy, psychopathy and sadism. They are also associated with conservative attitudes, except Vile World, which is partially related to liberal beliefs too. Since personality traits develop early in ontogenesis, whereas social attitudes form in early adulthood, it can be assumed that attitudes can mediate the influence of personality on extremist beliefs.

Participants were selected from the community sample in Serbia (N = 541, 72% females). They filled in the following questionnaires: 1) SD3 scale which measures psychopathy, Machiavellianism and narcissism; 2) SSIS, a short measure of sadism; 3) DELTA 10, a scale that assesses schizotypal characteristics; 4) SDI-46, a scale that explores social attitudes (it measures a broad range of lexically derived attitudes: Tradition-oriented Religiousness, Unmitigated Self-Interest, Communal Rationalism, Subjective Spirituality and Egalitarianism) and MEMS-24, the instrument which measures militant extremist beliefs. Results confirmed the findings obtained in previous studies regarding the associations between personality traits and MEMS: sadism was related to the Proviolence, manipulative tendencies correlated to the Vile World, while schizotypy predicted the Divine Power MEMS factor. Proviolence was predicted by the pattern of attitudes suggesting conservative ideology; Vile World was associated with the heightened religiosity and egalitarianism, while Divine Power's variance was explained almost exclusively by religiosity. Structural model was constructed where personality



traits were set as exogenous, attitudes as mediators and MEMS factors as endogenous variables. Results showed that the model adequately describes the empirical data. Results also revealed a complex pattern of relations between the constructs: the influences of sadism and Machiavellianism on MEMS were not mediated by attitudes; the mediation of the links between schizotypy, psychopathy and MEMS was partial, while narcissism had no direct influences on MEMS beliefs. Generally, research results provided a detailed description of personal and attitudinal characteristics that facilitate the endorsement of militant extremist thinking pattern. These findings can help researchers and practitioners in detecting and preventing the development of extremist beliefs which might contribute to the emergence of ideologically based violence.

**Keywords:** Militant Extremist Mind Set, dark traits, schizotypy, social attitudes

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### Kako prijateljski kontakt utiče na stavove prema „štreberima“: medijaciona analiza

Paradoksalno, dok društvo vrednuje i nastoji da ostvari uslove za visoko akademsko postignuće učenika, učenici sa izraženom akademskom orijentacijom često se suočavaju sa negativnim odnosom vršnjaka. Učenici etiketirani kao „štreberi“ pod rizikom su od opadanja akademskog postignuća i samopoštovanja, i od porasta anksioznosti i usamljenosti. Stoga je važno ispitati faktore koji mogu uticati na poboljšanje socijalnog statusa ove grupe učenika. Cilj ovog istraživanja bio je da se ispita efekat intergrupnog kontakta na stavove prema štreberima, a analiziran je set medijatora koji posreduju u vezi između kontakta i negativnih stavova. Uzorak je činilo 470 studenata Univerziteta u Beogradu i Novom Sadu (73.5% žene). Kontakt je meren kao broj ispitanikovih dobrih prijatelja koje drugi ljudi smatraju štreberima, dok su stavovi mereni Subskalom za merenje negativne komponente stava prema štreberima i Skalom socijalne distance prema štreberima. Analizirane su tri medijatorske varijable: empatija, intergrupna anksioznost i

samootkrivanje, koje predstavljaju neke od najčešće ispitivanih medijatora uticaja kontakta na ispoljavanje predrasuda.

Za testiranje medijacionih efekata primenjena je serija medijacionih regresionih analiza u kojima je kontakt bio prediktor, kriterijume su predstavljali negativan stav i socijalna distanca prema štreberima, a medijatore empatija, intergrupna anksioznost i samootkrivanje. Dobijen je značajan negativan totalni efekat (uticaj bez posredovanja medijatora) kontakta na negativan stav prema štreberima ( $B = -.103$ ,  $p < .001$ ) i na socijalnu distancu ( $B = -.250$ ,  $p < .001$ ). Nije dobijen značajan medijacioni efekat empatije u odnosu između kontakta i negativnog stava ( $B = -.105$ ,  $p < .001$ ;  $CI = -.002$  do  $.006$ ), kao ni u odnosu između kontakta i socijalne distance ( $B = -.242$ ,  $p < .001$ ;  $CI = -.023$  do  $-.001$ ). U modelu sa intergrupnom anksioznošću kao medijatorom dobijen je značajan direktni efekat kontakta i na negativan stav ( $B = -.058$ ,  $p < .001$ ;  $CI = -.065$  do  $-.033$ ) i na socijalnu distancu prema štreberima ( $B = -.149$ ,  $p < .001$ ;  $CI = -.138$  do  $-.071$ ). U modelu sa samootkrivanjem kao medijatorom, direktni efekat kontakta na negativan stav ( $B = -.053$ ,  $p < .001$ ;  $CI = -.072$  do  $-.034$ ) i direktni efekat kontakta na socijalnu distancu ( $B = -.122$ ,  $p < .001$ ;  $CI = -.178$  do  $-.088$ ) su značajni. Dakle, i intergrupna anksioznost i samorazotkrivanje predstavljaju delimične medijatore odnosa između kontakta i dve mere stava prema štreberima.

Rezultati ove studije ukazuju da intenzivniji i kvalitetniji kontakt sa akademski orijentisanim učenicima etiketiranim kao štreberima dovodi do smanjenja negativnih stavova prema ovoj grupi. Kontakt sa štreberima podstiče spremnost na samootkrivanje i smanjuje neprijatnost koju osoba oseća u prisustvu ove grupe učenika, koja zatim utiče na smanjivanje distance i negativnog stava. Međutim, kontakt ne podstiče empatiju sa štreberima, verovatno zbog toga što se oni ne opažaju kao naročito ugroženi u školskom kontekstu.

*Ključne reči:* akademska orijentacija, štreberi, stavovi, socijalna distanca, medijacija

## How friendship contact influences attitudes toward "nerds":

### Mediation analysis

It is an interesting paradox that, while society values and tries to create conditions for high academic achievement of students, academically oriented students are frequently faced with negative attitudes of their peers. The research indicated that students labeled as "nerds" are under risk of decreasing their academic achievement and self-confidence, as well as an increase of anxiety and loneliness.

Thus, it is of great importance to examine the factors that might improve the social status of these students.

The aim of this research was to examine the effect of intergroup contact on attitudes toward nerds and to analyze the mediators between the contact and negative attitudes in academic context. The sample consisted of 470 students of Universities of Belgrade and Novi Sad (73.5% females). Contact was measured as a number of good friends who are considered nerds, while attitudes were measured by the subscale Negative component of attitude toward nerds and Social distance scale. We analyzed three mediating variables: empathy, intergroup anxiety and self-disclosure, which are among the most investigated mediators of relationship between the contact and prejudices.

Mediation was examined by series of mediated regression analyses, where a predictor was contact, criteria were negative attitude and social distance toward nerds, and mediators were empathy, intergroup anxiety, and self-disclosure. We obtained statistically significant negative total effect (influence without mediation) of contact on negative attitude toward nerds ( $B = -.103$ ,  $p < .001$ ) and on social distance ( $B = -.250$ ,  $p < .001$ ). Empathy did not mediate the relationship between contact and negative attitude ( $B = -.105$ ,  $p < .001$ ; indirect effect  $CI = -.002$  to  $.006$ ), nor between contact and social distance toward nerds ( $B = -.242$ ,  $p < .001$ ;  $CI = -.023$  to  $-.001$ ). In the model with intergroup anxiety as mediator, there was statistically significant direct effect of contact on negative attitude ( $B = -.058$ ,  $p < .001$ ;  $CI = -.065$  to  $-.033$ ) and on social distance toward nerds ( $B = -.149$ ,  $p < .001$ ;  $CI = -.138$  to  $-.071$ ). When self-disclosure was included as mediator in the analysis, significant direct effects of contact on negative attitude ( $B = -.053$ ,  $p < .001$ ;  $CI = -.072$  do  $-.034$ ) and social distance ( $B = -.122$ ,  $p < .001$ ;  $CI = -.178$  do  $-.088$ ) were obtained. Hence, both intergroup anxiety and self-disclosure partially mediate the relationship between contact, on one hand, and negative attitude and social distance toward nerds, on the other.

The results of this study indicated that more intensive contact with academically oriented students labeled as “nerds“ leads to decreased negative attitudes toward this group. Contact with nerds encourages self-disclosure and reduces the discomfort in the presence of these students, which in turn reduces negative attitudes towards them. Interestingly, contact does not encourage empathy with students labeled as nerds, probably because they are not perceived as particularly vulnerable group.

**Keywords:** academic orientation, nerds, attitudes, social distance, mediation

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## Prediktori socijalne distance prema marginalizovanim grupama

Jednom dijagnostikovana depresija ili shizofrenija, ili javno deklarisanje osobe kao homoseksualno orijentisane, u svetu u kome su heteroseksualnost i uračunljivost norma, nosi etiketu koja osobu prati ceo život i koja je determiniše u očima drugih ljudi. Ako želimo da smanjimo stigmatu koja prati ove ljude moramo razumeti faktore koji na nju utiču. Cilj rada je ustanoviti potencijalni doprinos odabranih prediktora u socijalnoj distanci prema tri marginalizovane grupe. Očekuje se da će muški ispitanici pokazati generalno veću distancu. U ranijim nalazima pol objašnjava i do 40% varijanse prema nekim od ovih grupa. Očekuje se izraženija distanca prema osobama sa dijagnozom shizofrenije u odnosu na dijagnozu depresije. Lično iskustvo sa osobama sa dijagnozom mentalne bolesti povezano je sa manjom distancom prema istim. Kako je depresija zastupljenija u populaciji pretpostavlja se da je više ljudi imalo iskustva s njom.

Uzorak je činilo 370 studenata, 145 muškaraca i 225 žena sa teritorije Republike Srbije, uzrasta od 18 do 30 godina ( $M = 21.80$ ). Korišćene su dve verzije upitnika. Jedna verzija sadrži skalu koja meri socijalnu distancu prema osobama sa dijagnozom shizofrenije, a druga sa dijagnozom depresije dok se skala socijalne distance prema osobama homoseksualne orijentacije nalazi u obe verzije. Korišćene su vinjete sa opisom simptoma osobe koja ima određenu dijagnozu, dok je homoseksualna orijentacija eksplicitno navedena. Korišćeni instrumenti su Bogardusova skala, skala desničarske autoritarnosti (RWA) i skala socijalne dominacije (SDO). Za analizu rezultata korišćen je generalni linearni model (GLM), te je urađena analiza varijanse sa ponovljenim merenjima i analiza profila, kako bi se pokazali profili odgovaranja dve grupe ispitanika. Pol se pokazao značajnim prediktorom distance prema marginalizovanim grupama:  $F = 25.06$ ,  $p < 0.01$  za depresiju (veća distanca muškarci) i  $F = 25.56$ ,  $p < 0.01$  za shizofreniju (veća distanca muškarci). Muški ispitanici takođe pokazuju generalno veću distancu prema homoseksualcima. Ovo potvrđuje prvu pretpostavku. Pored pola, značajni prediktori socijalne distance prema osobama sa dijagnozom su i RWA i SDO. Muškarci sa višim skorovima na skali desničarske autoritarnosti, kao i izraženijom socijalnom dominacijom pokazuju veću distancu prema osobama sa dijagnozom.

Dobijena je izraženija distanca prema osobama sa dijagnozom depresije u odnosu na shizofreniju što opovrgava drugu pretpostavku.

Kada se u obzir uzmu raniji radovi koji sugerišu da religiozne i autoritarne osobe znatno više polažu na tradicionalne vrednosti ovakvi rezultati ne iznenađuju. Ono što nije bilo očekivano jeste veća distanca prema osobama sa dijagnozom depresije u odnosu na shizofreniju. Ovakvi nalazi mogu se pripisati specifičnom dizajnu istraživanja. U radu nije eksplicitno navedeno da osoba ima određenu dijagnozu već je dat opis simptoma koji karakteriše shizofreniju i depresiju. Ograničenja, buduće smernice i ostale implikacije biće prodiskutivane.

*Ključne reči:* socijalna distanca, osobe sa dijagnozom, homoseksualna orijentacija, religioznost, desničarska autoritarnost

### Predictors of social distance towards marginalized groups

Once diagnosed with depression or schizophrenia, or coming out as a homosexual, in a world where heterosexuality and accountability are standards, carries along a label that follows the person throughout their entire life and determines them in the eyes of other people. If we want to decrease that stigma, we need to understand the factors that have an effect on it. The objective of this research is to establish the potential contribution of the selected predictors in social distance towards the listed marginalized groups. A significant influence of gender is expected, in the way that male respondents show greater distance. Earlier findings show that gender explains up to 40% of the variance towards some of the groups. Greater distance is expected for the diagnosed with schizophrenia than with depression. Personal experience with the mentally ill is associated with smaller distance towards them. Since depression is more present in population, it is assumed that more people has encountered it.

The sample included 370 students, 145 men and 225 women from the territory of the Republic of Serbia, aged between 18 and 30 ( $M = 21.80$ ). Two different versions of a questionnaire were used, one with a scale for social distance towards people with schizophrenia and the other with a scale measuring distance towards people with depression. Both versions include a scale for measuring social distance towards homosexuals. The participants were presented with vignettes describing the symptoms of a diagnosed persons, while homosexual orientation was explicitly referred to. The used instruments: Bogardus scale, Right-wing authoritarianism scale (RWA) and Social-dominance orientation scale (SDO). A general linear model

was used for the analyses, the variance analysis with repeated measurements and profile analyses to show the profiles of the two groups of respondents. Gender turned out to be a significant predictor:  $F = 25.06$ ,  $p < .01$  for depression (greater distance for men) and  $F = 25.56$ ,  $p < .01$  for schizophrenia (also greater for men). Male respondents also show greater distance towards homosexuals. This proves the first hypothesis. Other than gender, RWA and SDO turned out as significant predictors. Male respondents with higher scores on RWA and SDO show greater distance towards diagnosed persons. Greater distance towards the diagnosed with depression than with schizophrenia denies the second hypothesis.

The results are not surprising, if taken into account previous findings that suggest that religious and authoritarian people give much more importance to traditional values. However, what does surprise us is the result showing greater distance towards the diagnosed with depression than with schizophrenia. This could be a consequence of the specific research design. It was not specified that the person was diagnosed, instead there were descriptions of symptoms characterizing depression or schizophrenia. Limitations, further directions and implications will be discussed.

*Keywords:* social distance, people with diagnosis, homosexuality, religiousness, right-wing authoritarianism

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## Sličnosti mladih na Balkanu: socijalna distanca prema marginalnim grupama

Krajem XX veka region Balkana je iskusio etničke sukobe i rat, a empirijski podaci ukazuju da su nacionalizam i predrasude i dalje veoma prisutni. Koncept socijalne distance je dosta ispitivan u regionu, a prema hipotezi kontakta odsustvo kontakta produbljuje jaz među grupama. Zato je za post-konfliktna društva od velikog značaja da istraže postojanje i mehanizame za uspešno smanjenje distance. Glavni ciljevi u ovoj studiji su: a) da se izmeri socijalna distanca mladih prema različitim

marginalnim grupama u regionu Balkana b) da se utvrde razlike između zemalja u socijalnoj distanci mladih prema marginalnim grupama.

Kvantitativno istraživanje je sprovedeno u sledećim zemaljama regiona: Srbija, Crna Gora, Makedonija, Bosna i Hercegovina i Kosovo. Odlučili smo se za ciljnu populaciju mladih od 13-18 godina, jer predstavlja generator društvenih promena. Nacionalne i regionalne strategije za mlade proklamuju toleranciju, inkluzivnost i građanski aktivizam, ali retko sadrže mehanizme za njihovo ostvarivanje. Upitnik je zadavan telefonom na ukupnom uzorku od 1023 učesnika. Oko 200 mladih ispitanika je učestvovalo iz svake zemlje, a uzorak je reprezentativan za datu grupu u svakoj zemlji i stratifikovan po četiri komponente: tip naselja, region, starost, ipol. Istraživanje je sprovedeno u novembru 2014.

Merena je socijalna distanca prema pet marginalnih grupa: LGBT, Romi, veoma siromašni, osobe sa invaliditetom, etničke manjine. Ispitali smo različite marginalne grupe po tipu stigmatizacije (vidljiva i nevidljiva kao što su osobe sa invaliditetom / LGBT, kontrolisana i nekontrolisana stigma kao što su veoma siromašni / etničke manjine) i stepenu stigmatizacije. Etničke manjine su uključene jer odražavaju etničke tenzije u regionu koji se još uvek posmatra kao post-konfliktni (Albanci, Srbi ili Makedonci); Romska populacija je uključena jer je najviše diskriminisana u istočnoj i centralnoj Evropi. Socijalna distanca je merena pomoću četiri pitanja (prilagođena verzija Bogardusove skale, 1925), u rasponu od najmanjeg (1) do najvećeg prihvatanja (5), odnosno ukupno od 4 do 20 na skali distance za svaku marginalnu grupu.

Rezultati su potvrdili pretpostavke. A) Postoji razlika u socijalnoj distanci prema različitim marginalnim grupama među mladima na Balkanu. Distanca je posebno visoka prema LGBT populaciji (na skali socijalne distance  $M = 9.45$ ), etničkim grupama ( $M = 11.26$ ) i romskoj populaciji ( $M = 12.37$ ), dok je najmanja socijalna distanca ka osobama sa invaliditetom ( $M = 15.60$ ) i veoma siromašnim ljudima ( $M = 16.71$ ). B) Nema suštinske razlike u socijalnoj distanci između mladih u regionu Balkana, isti je redosled stepena (ne)prihvatanja ispitivanih grupa. Ipak, mladi sa Kosova dosledno pokazuju konzervativnije ponašanje, statistički je značajno veća socijalna distanca prema svim marginalnim grupama, naročito prema etničkim grupama i LGBT. Veća je varijabilnost među zemljama kod manje prihvaćenih grupa (LGBT, etničke grupe).

*Ključne reči:* socijalna distanca, marginalne grupe, Balkan, mladi

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## Balkan youth unification: Social distance toward marginal groups

Balkan region experienced ethnic conflicts, and empirical data indicated that nationalism and prejudice are still broadly present. Social distance as a concept has been used widely in the Balkan region to test acceptance of different ethnic groups. According to contact hypothesis the absence of contact would deepen the gap in intergroup relationships and it is of great importance for post conflict societies to investigate the existence and mechanism to successfully address discrimination reduction. The main goals in this study were: a) to measure social distance toward different marginal groups among youth in the Balkan region b) to measure the country differences in social distance toward marginal groups among youth.

Quantitative survey was conducted in several countries of the Balkan region: Serbia, Montenegro, Macedonia, Bosnia and Herzegovina, and Kosovo. We opted to specifically target young people (13-18 years old) as they are often seen as a generator of societal change by policy makers of national and regional strategies for youth. The questionnaire was administered to 1023 participants by telephone. Around 200 youth respondents participated from each country, and stratified probability representative sample was used. Data was stratified by four components to match key characteristics of the youth in each country: type of settlement, regions, age, and gender. Survey was conducted in November 2014.

Social distance toward five marginal groups was measured: LGBT, Roma people, very poor people, physically disabled people, main ethnic out-groups. The marginal groups presented variety of types (visible and non-visible such as physically disabled / gays and lesbians; controllable and non-controllable such as very poor / ethnic minorities) and degree of stigmatization. Ethnic minorities were included to reflect ethnic tensions in the region; Roma population as typically most discriminated against in eastern and central Europe. Social distance was measured by four questions (adapted version of Bogardus' social distance scale, 1925), ranging from lower (1) to highest acceptance (5), total score from 4 to 20.

A) Data showed difference in social distance toward marginal groups among youth population in the Balkans. Distance was high especially toward LGBT (mean on a social distance scale  $M = 9.45$ ), main ethnic out-group ( $M = 11.26$ ) and Roma population ( $M = 12.37$ ), while the lowest social distance was reported toward disabled ( $M = 15.60$ ) and very poor people ( $M = 16.71$ ). B) No essential difference between youth from Balkan countries has been found in social distance toward



different marginal groups. However, youth from Kosovo consistently reported more conservative behavior, statistically significant larger social distance toward all measured marginal groups, especially toward ethnic out-group ( $t = -19.14, p < .01$ ) and gays and lesbians ( $t = -6.17, p < .01$ ). For less accepted groups (LGBT, ethnic groups) we measured more variability between the countries.

*Keywords:* social distance, marginal groups, Balkan countries, youth

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### Slika o vlastitom tijelu kao prediktor stavova prema pretilim osobama

Cilj rada bio je ispitati doprinosi li slika o vlastitom tijelu, važnosti pravilne prehrane i spol sudionika izražavanju stavova prema pretilim osobama. Varijable su odabrane kako bi se provjerilo kako doživljaj sebe i svog ponašanja utječe na percepciju drugih budući da se u ranijim istraživanjima pokazalo kako su one bitne odrednice stavova prema pretilim osobama. Osim demografskih podataka, sudionici su popunili Upitnik zadovoljstva tjelesnim izgledom (Mendelson, Mendelson i White, 2001) i Upitnik negativnih stavova prema pretilim osobama (Crandall, 1994). Istraživanje je provedeno na prigodnom uzorku od 430 studenata (213 studenata i 217 studentica). Prosječna dob sudionika iznosila je  $M = 21.09$  ( $SD = 1.679$ ;  $min = 19$ ,  $max = 28$  godina). Sudionici su iskazali neutralne stavove prema pretilim osobama. Rezultati provedene hijerarhijske regresijske analize pokazali su kako su značajniji prediktori stavova prema pretilim osobama, osim spola ( $\beta = .14, p < .01$ ) i neki aspekti slike o vlastitom tijelu. Specifičnije, značajnim faktorima pokazali su se zadovoljstvo vlastitom tjelesnom težinom ( $\beta = .18, p < .01$ ), ali i procjena sudionika kako okolina evaluira njihov vanjski izgled ( $\beta = -.22, p < .01$ ). Navedeni faktori objasnili su oko 7% varijance stava prema pretilim osobama ( $F(2,413) = 4.16, p < .01$ ). Dakle, negativnije stavove prema pretilim osobama skloniji su izražavati mladići, sudionici zadovoljni vlastitom tjelesnom težinom te oni koji percipiraju kako okolina negativnije procjene njihov tjelesni izgled. Budući da su negativni stavovi prema pretilima duboko ukorijenjeni i povezane s diskriminacijom pretilih, važno je bolje razumjeti prirodu takvih stavova kao osnovu za preventivne i intervencijske programe koje,

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sukladno rezultatima ovog istraživanja, treba usmjeriti na poticanje razumijevanja i empatije prema pretilima i povećanje vlastitog tjelesnog samopoštovanja.

*Ključne reči:* predrasude, pretile osobe, slika o vlastitom tijelu, zadovoljstvo tjelesnim izgledom

### The body image as a predictor of attitudes towards obese people

The aim of this study was to examine does the body image, the importance of proper nutrition, and gender contribute to attitudes towards obese people. Variables were selected to explore effects of self-perception on perception of the others, in accordance with results of previous research. Participants filled out demographic data, Body Esteem Questionnaire for Adolescence and Adult (Mendelson, Mendelson and White, 2001) and Antifat Attitudes Questionnaire (Crandall, 1994). The study was conducted on a sample of 430 students (213 male and 217 female) in Osijek. The average age of participants was  $M = 21.9$  ( $SD = 1,679$ ;  $min = 19$ ,  $max = 28$ ). Participants expressed a neutral attitude towards obese persons. Hierarchical regression analyzes have shown that significant predictors of attitudes toward obese persons were gender ( $\beta = .14$ ,  $p < .01$ ), weight satisfaction ( $\beta = .18$ ,  $p < .01$ ), and evaluations attributed to others about one's body and appearance ( $\beta = -.22$ ,  $p < .01$ ). These factors explained about 7% variance of attitudes towards obese people ( $F(2,413) = 4.16$ ,  $p < .01$ ). Therefore, positive attitudes towards obese people will more likely express male participants, participants satisfied with their own body weight and those who perceived negative evaluations about one's body and appearance. Negative attitudes toward obese people, and even prejudices, are deeply rooted and they lead to discrimination. That makes the examination of the nature of such attitudes important as the scientific base for prevention and intervention. Our results suggest that this programs should be directed toward higher understanding of and empathizing with obese people and toward increase of body self-esteem.

*Keywords:* prejudice, obese people, body image, body esteem



RAZVOJNA PSIHOLOGIJA

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## Relations between teachers' personality traits and assessment errors

The main purpose of this study was to examine the relations between teachers' personality traits and the part of their assessment practice which refers to potential errors. The second aim was to detect the socio-demographic variables which are related to teachers' assessment errors. When it comes to socio-demographic variables, the research included following characteristics: teachers' grade point average during the study, length of service, and the type of school where teachers work. A sample of 118 secondary school teachers from Serbia (74.6% female teachers) responded to several instruments: newly-designed scale SGO, constructed for the purpose of measuring teachers' tendencies toward assessment errors, and BFI which was used for evaluation of personality dimensions, proposed by the Big Five model. Principal component analysis with Promax rotation, which was applied to examine the structure of SGO, extracted four factors, which explain 42.43% of the total variance. The factors were named as: 1. First impression error; 2. Teachers' personal equation; 3. Context or adjustment situation error; 4. Accuracy or differentiation error. The results of canonical correlation analysis suggest the presence of one significant canonical correlation ( $R_c = .41$ ;  $p < .05$ ). The significant pair of canonical factors indicate correlation between the four personality dimensions (Extraversion, Neuroticism, Agreeableness and Conscientiousness) and the second factor of teachers' assessment errors, whereby only Agreeableness correlates negatively with the criterion. On the other hand, MANOVA showed statistically significant differences in teachers' tendencies toward a particular type of assessment error with regard to the type of school. Further, the length of the teachers' service is proved to be significantly associated with teachers' assessment errors. Namely, the older teachers often make context or adjustment situation error ( $r = .241$ ;  $p < .01$ ). Ultimately, according to the obtained results, teachers' academic success is not relevant to assessment errors.

**Keywords:** teachers' assessment errors, teachers' personality traits, Big Five model

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## Da li su srpski studenti autentični ili ne?

Cilj rada je utvrditi da li su studenti autentični s obzirom na godine i pol. Uzorak su činili studenti (N = 598) prosečne starosti AS = 22.70 (23,4% muškog i 76.6% ženskog pola). U istraživanju je korišćen instrument Skala autentičnosti (Authentic Scale – Wood, Linley, Maltby, Baliousis, & Joseph, 2008). Skala autentičnosti se sastoji od tri subskale – autentični život, prihvatanje spoljašnjeg uticaja i samo-otuđenje. Subskala autentični život ispituje u kojoj meri se osoba ponaša u skladu sa ličnim vrednostima i uverenjima. Subskala prihvatanje spoljašnjih uticaja ispituje u kojoj meri osoba prihvata uticaj drugih ljudi zbog uverenja da mora da se uskladi sa očekivanjima drugih. Subskala samo-otuđenje ispituje u kojoj meri osoba poznaje sebe.

Rezultati pokazuju da su ispitanici ostvarili prosečan rezultat na Skali autentičnosti AS = 44.6 (teorijski raspon je od 12-84). Što se tiče subskala, najviši rezultat su studenti postigli na subskali Autentični život AS = 22.90 (teorijski raspon je od 4-28), zatim na subskali Prihvatanje spoljašnjeg uticaja AS = 10.97 (teorijski raspon je od 4-28), a najniži rezultat je na subskali Samo-otuđenje AS = 10.72 (teorijski raspon je od 4-28). S obzirom na pol, postoji statistički značajna razlika na subskali Autentični život ( $F(1,597) = 4.459; p < .05$ ), a studentkinje se češće ponašaju u skladu sa ličnim vrednostima i uverenjima ( $t(596) = -2.112; p < .05$ ). S obzirom na godine, postoji statistički značajna razlika na subskali Samo-otuđenje ( $F(1,597) = 1.645; p < .05$ ). Pirsonov koeficijent korelacije je pokazao da postoji statistički značajna negativna korelacija između rezultata na subskali Autentični život i subskalama Prihvatanje spoljašnjeg uticaja ( $r = -.210, p < .01$ ) i Samo-otuđenje ( $r = -.277, p < .01$ ), dok je između poslednje dve subskale statistički značajna pozitivna korelacija ( $r = .466, p < .01$ ).

Zaključak istraživanja bi bio da je ličnost studenata autentična. Razvojno gledano, očekuje se da sa godinama osoba sve bolje upoznaje sebe i time bolje usklađuje svoje ponašanje i emocije sa vlastitim uverenjima, psihološkim stanjima iz čega proizilaze i vlastita očekivanja od svojih želja i mogućnosti.

**Ključne reči:** autentičnost, studenti, pol, uzrast

## Are Serbian students authentic or not?

The aim is to determine whether students are authentic on the basis of the age and gender. The sample consisted of students ( $N = 598$ ), mean age = AS 22.70 (23.4% male and 76.6% female). The study used an instrument The Authentic Scale (Wood, Linley, Maltby, Baliousis & Joseph, 2008). The Authentic Scale consists of three subscales - authentic living, acceptance of external influence and self-alienation. Subscale authentic living examines the extent to which a person is acting in accordance with personal values and beliefs. Subscale of acceptance of external influences examines the extent to which person accepts the influence of others because of the belief that he/she must comply with the expectations of others. Subscale of self-alienation examines the extent to which a person knows himself/herself.

The results show that the respondents had an average score on the scale authenticity AS = 44.6 (theoretical range was from 12-84). The highest score students achieved in the subscale authentic living subscale AS = 22.90 (theoretical range was from 4-28), then in the subscale acceptance of external influence subscale AS = 10.97 (theoretical range was from 4-28) and the lowest scores in the subscales self-alienation AS = 10.72 (theoretical range was from 4-28). On the basis of gender, there was a statistically significant difference in the subscale authentic living ( $F(1,597) = 4.459, p < .05$ ), and female students are more likely to behave in accordance with personal values and beliefs ( $t(596) = -2.112, p < .05$ ). On the basis of age, there was a statistically significant difference in the subscale self-alienation ( $F(1,597) = 1.645, p < .05$ ). Pearson's correlation coefficient showed a statistically significant negative correlation between the scores in subscales authentic living and subscales acceptance of external influences ( $r = -.210, p < .01$ ), and self-alienation ( $r = -.277, p < .01$ ) and statistically significant positive correlation between the last two subscales ( $r = .466, p < .01$ ).

The study concluded that students' personality is authentic. In developmental background, it is expected that over the years people better know themselves and thereby better harmonize their behaviour and emotions with their own beliefs, psychological conditions which result in their own expectations of their desires and capabilities.

**Keywords:** authenticity, students, gender, age

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## Empatičnost učenika srednje škole – razlike u odnosu na tip škole

Empatija, kao sposobnost razumevanja i deljenja tuđeg emocionalnog stanja ili konteksta, predstavlja kapacitet koji može uticati na uspešnije interpersonalno razumevanje, osećanje ličnog zadovoljstva i formiranje socijalno poželjnih obrazaca ponašanja. Polazeći od pretpostavke da na razvoj i ispoljavanje empatičnosti pojedinaca, posebno u periodu adolescencije, značajan uticaj ostvaruju sredinski faktori vezani za školsko okruženje, postavljeno je istraživanje sa ciljem utvrđivanja razlika u empatičnosti učenika srednje škole u odnosu na tip škole koji pohađaju.

Podaci su prikupljeni u prvom polugodištu školske 2014/2015 godine, u pet beogradskih srednjih škola (dve gimnazije i tri stručne škole), na uzorku od 563 učenika oba pola (53% muškog i 47% ženskog pola), uzrasta od 14 do 19 godina ( $M = 16.26$ ,  $SD = 1.04$ ). Za procenu empatičnosti korišćena je Skala bazične empatičnosti (Basic Empathy Scale – BES; Joliffe, Farrington, 2006) koja se sastoji od 20 stavki sa odgovorima na petostepenoj skali Likertovog tipa razvrstanim u supskale kognitivne i afektivne empatičnosti. Pouzdanost instrumenta u celini, merena Kronbah-alfa koeficijentom interne konzistencije, iznosi .79, a visok nivo pouzdanosti zadržan je i na supskalama.

Rezultati istraživanja potvrđuju postojanje statistički značajnih razlika u nivou empatičnosti učenika srednje škole u odnosu na tip škole koju pohađaju. Posmatrano na nivou globalne empatičnosti, učenici gimnazija su bazično empatičniji ( $M = 3.67$ ,  $SD = .47$ ) od učenika stručnih škola ( $M = 3.54$ ,  $SD = .55$ ),  $t(561) = 2.757$ ,  $p < .001$ . Statistički značajne razlike zadržavaju se i na obe komponente empatije. Učenici gimnazija imaju statistički značajno viši skor na skali afektivne empatičnosti ( $M = 3.23$ ,  $SD = .69$ ) nego učenici stručnih škola ( $M = 3.07$ ,  $SD = .79$ ),  $t(561) = 2.266$ ,  $p < .05$ . I na skali kognitivne empatičnosti razlike između gimnazijalaca ( $M = 4.21$ ,  $SD = .49$ ) i učenika stručnih škola ( $M = 4.11$ ,  $SD = .55$ ) ostaju statistički značajne,  $t(561) = 2.105$ ,  $p = < .05$ .

Dobijeni rezultati mogli bi se pojednostavljeno tumačiti u kontekstu moguće izraženijih intelektualnih sposobnosti učenika gimnazija u odnosu na učenike srednjih škola (procenjenih posredno na osnovu broja bodova koji je bio potreban

za upis srednje škole, a koji je bio znatno viši u gimnazijama nego u stručnim školama obuhvaćenim uzorkom), te pretpostavke da je bolje školsko postignuće tokom osnovnoškolskog obrazovanja delom rezultat intelektualnih kapaciteta koji bi mogli biti i jedan od razloga postizanja viših skorova empatičnosti. Međutim, izvođenje objektivnih i naučno zasnovanih zaključaka o razlozima ustanovljenih razlika u empatičnosti učenika zahtevalo bi dalja istraživanja kako personalnih tako i socijalnih varijabli koje bi mogle biti u vezi sa razvojem kognitivne i afektivne komponente empatije na školskom uzrastu.

*Ključne reči:* empatičnost, empatija, srednja škola, gimnazija, učenici

### Empathy in high school students - differences in relation to the school type

Empathy, as an understanding and sharing of another's emotional state or context, is the capacity that may affect successful interpersonal understanding, a sense of personal satisfaction and the formation of socially desirable behavior patterns. Assuming that the development and demonstration of empathy in individuals, especially in adolescence, is considerably influenced by environmental factors related to the school environment, a study was set up with the aim of determining the differences in empathy of high school students in relation to the type of school they attend.

Data were collected in the first half of the school year 2014/2015, in five Belgrade high schools (two grammar schools and three vocational schools), on a sample of 563 students (53% males and 47% females) aged 14 to 19 years ( $M = 16:26$ ,  $SD = 1.04$ ). In order to assess empathy, the Basic Empathy Scale was used (Basic Empathy Scale - BES; Joliffe, Farrington, 2006), consisting of 20 items with answers on a five-point Likert scale categorized into subscales of cognitive and affective empathy. Reliability of the whole instrument, measured by Cronbach alpha coefficient of internal consistency was .79, and a high level of confidence has been maintained with the subscales.

The research results confirm the existence of statistically significant differences in the level of empathy of secondary school students in relation to the type of school they attend. Looking at the global empathy, grammar school students are basically more empathical ( $M = 3.67$ ,  $SD = .47$ ) than students of vocational schools ( $M = 3.54$ ,  $SD = .55$ ),  $t(561) = 2.757$ ,  $p < .001$ . Statistically significant differences are retained in the two components of empathy. Grammar school students have significantly



higher scores on a scale of affective empathy ( $M = 3.23$ ,  $SD = .69$ ) than students of vocational schools ( $M = 3.07$ ,  $SD = .79$ ),  $t(561) = 2.266$ ,  $p < .05$ . And the differences on the scale of cognitive empathy between grammar school students ( $M = 4.21$ ,  $SD = .49$ ) and students of vocational schools ( $M = 4.11$ ,  $SD = .55$ ) remain statistically significant,  $t(561) = 2.105$ ,  $p = < .05$ .

The results could be simplified interpreted in the context of possible more pronounced intellectual abilities of students in grammar school compared to students in vocational schools (estimated indirectly based on the number of points that was required for enrollment in high school which was significantly higher in grammar than in vocational schools in covered sample) and the assumption that better academic achievement in primary school education partly the result of the intellectual capacity that could be one reason for achieving higher empathy scores. However, finding out objective and scientifically based conclusions about the reasons for the established difference in students empathy would require further research to personal and social variables which could be related to the development of cognitive and affective components of empathy in school children.

Keywords: empathy, middle school, high school, students

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## Stres, strategije prevladavanja i zadovoljstvo kvalitetom života kod delinkvenata

Prikazano istraživanje bavi se izloženošću stresu, upotrebom strategija prevladavanja i zadovoljstvom kvalitetom života kod adolescenata iz dve grupe: delinkvenata i njihovih vršnjaka iz opšte populacije. Cilj je ispitati razlike između ove dve grupe ispitanika. Uzorak čine 144 adolescenta uzrasta 14 do 18 godina koji su počinili bar jedno krivično delo, a štićenici su Centra za socijalni rad grada Novog Sada, i u okviru kontrolne grupe, 122 učenika srednjih stručnih škola. Od instrumenata korišćena je, pored upitnika o demografskih podacima, Lista životih događaja i Skala zadovoljstva kvalitetom života kreirane za potrebe istraživanja, kao i Indikator strategija prevladavanja (The Coping Strategy Indicator-CSI:

Amirkhan, 1990) kojim se registruje upotreba tri kategorije strategija prevladavanja – rešavanje problema, traženje socijalne podrške i izbegavanje. Rezultati pokazuju da postoje statistički značajne razlike između grupe delinkvenata i adolescenata iz opšte populacije ( $F = 33.490$ ,  $p < .001$ , Wilksova lambda = 0.561). Nađene su razlike u broju stresnih događaja ( $F = 15.50$ ;  $p < .001$ ) i korišćenju dve strategije prevladavanja: rešavanje problema ( $F = 173.32$ ,  $p < .001$ ) i traženje socijalne podrške ( $F = 19.74$ ,  $p < .001$ ). Nisu dobijene značajne razlike u ukupnom opterećenju stresnih događaja, izbegavajućoj strategiji prevladavanja, kao ni u opštem zadovoljstvu životom. Što se tiče stresa i stresnih događaja, iako nema razlika u opterećenju u dve grupe adolescenata, to opterećenje je kod grupe delinkvenata raspoređeno na manji broj stresnih događaja, što upućuje na zaključak o tome da oni određene događaje procenjuju i doživljavaju kao više stresne u odnosu na svoje vršnjake iz opšte populacije. Zanimljiv je i neočekivan rezultat je da su dobijene značajne razlike u strategijama prevladavanja, tako da delinkventi više koriste strategije usmerene na rešavanje problema, kao i traženje socijalne podrške. Rezultati mogu biti iskorišćeni u svrhu kreiranja preventivnih programa usmerenih na povećanje otpornosti u susretu sa stresnim događajima, kao i na povećavanje uspešnosti prevladavanja kod mladih u sukobu sa zakonom.

Istraživanje je deo projekta br. 179022, pod nazivom “Efekti egzistencijalne nesigurnosti na pojedinca i porodicu u Srbiji” podržanog od strane Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije.

*Ključne reči:* stres, opterećenje, strategija prevladavanja, zadovoljstvo kvalitetom života, delinkvencija

### Stress, coping and life satisfaction in delinquents

Presented study aims to examine differences in stress exposure, coping strategies, and life satisfaction between two groups of adolescents - delinquents and their peers from general population. The sample consisted of 144 adolescents, aged 14 to 18, who have committed at least one offense, and 122 students of secondary vocational schools in control group. We used Life events scale and Life satisfaction scale designed for the purpose of this research, and the Coping Strategy Indicator-CSI (Amirkhan, 1990). CSI measures three coping strategies - problem solving, seeking social support and avoidance. Results show that there was a statistically significant difference between delinquents and adolescents from general population ( $F = 33.490$ ,  $p < .001$ , Wilk's Lambda = 0.561). Differences were found in the number of experienced stressful events ( $F = 15.50$ ,  $p < .001$ ), and the use of

problem solving ( $F = 173.32, p < .001$ ) and social support seeking ( $F = 19.74, p < .001$ ) coping strategies. No differences were found in the degree of stressfulness of life events, avoidance coping and life satisfaction between delinquents and adolescents from general population. Although no differences in the degree of stressfulness of life events were registered, delinquents report of lower number of stressful life events, suggesting they may assess events as more stressful. Differences in the use of coping strategies are somewhat surprising, suggesting that delinquents use problem solving, as well as social support seeking more than adolescents from general population. Results could be useful in creating preventive programs aimed at increasing stress tolerance and coping success.

The research is part of the project no. 179022 "Effects of existential uncertainty to individuals and families in Serbia", supported by the Ministry of Education, Science and Technological Development of Republic of Serbia.

*Keywords:* stress, strain, coping, life satisfaction, delinquency

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### Vaspitne metode roditelja dece predškolskog uzrasta – razlike u odnosu na karakter pružene ljubavi

Za podsticanje pozitivnog razvoja deteta, osim ispoljavanja bezuslovne ljubavi, potrebno je, već nakon druge godine života, uvoditi pojam uslovljene pažnje i ljubavi koju dete zaslužuje svojim ponašanjem, ispunjavanjem određenih zadataka i ovladavanjem novim veštinama. Smatra se da balans između bezuslovne i uslovljene ljubavi roditelja daje optimalan podsticaj razvoju samopoštovanja i samopouzdanja deteta, ali i obezbeđuje komplementarnu primenu različitih vaspitnih metoda i postupakakoji služe razvijanju i jačanju kompetencija dece.

U cilju ispitivanja odnosa između primene vaspitnih metoda i nivoa pružene bezuslovne i uslovljene ljubavi roditelja dece predškolskog uzrasta, sprovedeno je, tokom jula 2014. godine, istraživanje na uzorku od 100 roditelja (74% majke, 24% očevi, prosečne starosti 35.4 godina) dece predškolskog uzrasta (od 4 do 7 godina) iz pet beogradskih vrtića. Stepem ispoljavanja bezuslovne i uslovljene pozitivne,

odnosno negativne pažnje, kao i zahteva i očekivanja koje roditelji stavljaju pred dete, procenjen je BUT profilom ( $\alpha = .61$ ), dok su metode i sredstva koje roditelji upotrebljavaju u vaspitanju dece ispitani revidiranim upitnikom MISKRUP ( $\alpha = .75$ ) (Šindić, 2010).

Rezultati istraživanju potvrđuju postojanje statistički značajnih razlika u vaspitnim metodama roditelja dece predškolskog uzrasta u odnosu na karakter bezuslovne i uslovljene ljubavi i pažnje koju pokazuju prema svom detetu. Persuaziju najviše koriste roditelji sa optimalnim nivoom bezuslovne pozitivne pažnje ( $F(3,96) = 4.01$ ,  $p < .01$ ), roditelji koji preterano ispoljavaju uslovljenu pozitivnu pažnju ( $F(2,97) = 13.22$ ,  $p < .001$ ), ali i oni koji postavljaju optimalne zahteve i očekivanja ( $F(2,95) = 4.41$ ,  $p < .05$ ). Podsticanje je kao vaspitna metoda češće korišćena od strane roditelja koji pokazuju optimalan nivo bezuslovne pozitivne pažnje ( $F(3,95) = 30.65$ ,  $p < .001$ ), optimalni ili preterani nivo uslovljene pozitivne pažnje ( $F(2,96) = 9.14$ ,  $p < .001$ ), kao i niži nivo bezuslovne negativne pažnje ( $F(1,97) = 6.92$ ,  $p < .01$ ). Upotreba vežbanja kao vaspitne metode je učestalija kod roditelja koji preterano ispoljavaju uslovljenu pozitivnu pažnju ( $F(2,95) = 7.39$ ,  $p < .01$ ) i postavljaju viša očekivanja ( $F(2,93) = 4.88$ ,  $p < .01$ ).

Dobijeni nalazi upućuju na zaključak da metode podsticanja i vežbanja manje koriste roditelji koji ispoljavaju ekstremne forme ispitivanih konstrukata ljubavi (nedovoljno ili preterano ispoljavanje ljubavi i postavljanje niskih ili previsokih zahteva), dok se primena persuazije povećava sa preteranom primenom uslovljene pozitivne pažnje. Praktične implikacije dobijenih rezultata ogledaju se u potrebi kreiranja edukativnih preventivnih programa za roditelje u cilju unapređivanja nivoa njihovih znanja i veština u pogledu uspostavljanja balansa između pružanja bezuslovne i uslovljene ljubavi, a radi podsticanja primene raznovrsnih vaspitnih metoda u podsticanju pozitivnog razvoja dece.

*Ključne reči:* vaspitne metode, bezuslovna i uslovljena ljubav, roditeljstvo, pozitivan razvoj

The educational methods of preschool children`s parents - differences in relation to the character of provided love

To encourage the positive development of children, it is necessary, not only to show unconditional love, but to introduce the concept of the conditioned attention and love that child deserves with his behavior, by completing certain tasks and mastering new skills. It is believed that a balance between unconditional and conditional love of the parents gives an optimal encouragement to the child`s

development of self-esteem and self-confidence, and it also provides complementary use of different educational methods and practices that serve to develop and strengthen competences in children.

In order to investigate the relationship between the use of educational methods and the level of unconditional and conditional love that is provided by the preschool children's parents, a survey was conducted on 100 parents (74% mothers and 24% fathers) of preschool children from five Belgrade's kindergartens. The degree of manifestation of unconditional and conditional and also positive or negative attention, as well as the demands and expectations that parents put in front of a child, was estimated with the BUT profile ( $\alpha = .61$ ), while the methods and means used by parents in the upbringing of the children were questioned with the revised questionnaire MISKRUP ( $\alpha = .75$ ).

The results confirm the existence of significant differences in educational methods of parents of preschool children in relation to the character of unconditional and conditional love that they show to their child. The use of persuasion is more present in parents with optimal levels of unconditional positive attention ( $F(3,96) = 4.01, p < .01$ ), parents who express too much conditioned positive attention ( $F(2,97) = 13.22, p < .001$ ), and also in parents who set the optimum requirements and expectations ( $F(2,95) = 4.41, p < .05$ ). Encouragement as an educational method is often used by parents who have the optimum level of unconditional and positive attention ( $F(3,95) = 30.65, p < .001$ ), and who have the optimal level or excessive conditioned positive attention ( $F(2,96) = 9.14, p < .001$ ), as well as a lower level of unconditional negative attention ( $F(1,97) = 6.92, p < .01$ ). Using exercise as an educational method is more common among parents who over-express the conditioned positive attention ( $F(2,95) = 7.39, p < .01$ ) and set higher expectations ( $F(2,93) = 4.88, p < .01$ ).

The results indicate that the methods of encouragement and exercise are less used by parents who exhibit extreme forms of investigated constructs of love, while the use of persuasion increases with the excessive application of positive attention. Practical implications of the results are reflected in the need to create educational prevention programs for parents in order to improve the level of their knowledge and skills in terms of establishing a balance between the provision of unconditional and conditional love, and to encourage the application of various educational methods in encouraging the positive development of children.

**Keywords:** educational methods, unconditional and conditional love, parenthood, positive development

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## Životni događaji izadovoljstvo životom kod starih odraslih osoba

Veliki broj istraživanja pokazuje da su stare odrasle osobe specifične po vrsti, hronicitetu, percepciji životnih događaja, kao i efektu istih na zadovoljstvo životom. Cilj ovog istraživanja je identifikacija stresnih životnih događaja koji utiču na pad zadovoljstva životom kod starih odraslih osoba. U istraživanju je učestvovalo 109 ispitanika (18 muških i 91 ženskih), starosti od 65 do 83 godine ( $AS = 72.53$ ;  $SD = 5.19$ ), sa teritorije republike Srbije. Primenjen je Inventar stresnih događaja, konstruisan za potrebe istraživanja, pomoću kog su identifikovani doživljeni stresni događaji, a koji se sastoji od 15 događaja relevantnih za ovu populaciju (prema kriterijumima ustanovljenim na osnovu prethodnog istraživanja), kao i Skala zadovoljstva životom (SWLS) od 5 stavki. Serija jednosmernih analiza varijansi je sprovedena u paketu SPSS za Windows. Rezultati ukazuju na signifikantne razlike na skali SWLS kod sledećih životnih događaja -odlasku penziju ( $F = 5.61$ ,  $p < .05$ ), razvod ili prekid duže veze ( $F = 6.6$ ,  $p < .05$ ), problemi sa zakonom ( $F = 6.24$ ,  $p < .05$ ), razvod ili raskid veze člana porodice ( $F = 5.86$ ,  $p < .05$ ), i za probleme sa zakonom člana porodice ( $F = 6.38$ ,  $p < .05$ ). Za ostale životne događaje nisu nađene statistički značajne razlike. Rezultati ovog istraživanja sugerišu da odlazak u penziju, razvod ili prekid duže veze, problemi sa zakonom, razvod ili raskid veze člana porodice i problemi sa zakonom člana porodice statistički značajno umanjuju subjektivni doživljaj nivoa zadovoljstva životom. Nalazi upućuju na važnost određenih životnih događaja kod starih odraslih osoba i važnost daljeg ispitivanja njihovog uticaja na mentalno zdravlje, u svrhu prevencije negativnih ishoda. Ovi nalazi, ograničenja, kao i smernice za buduća istraživanja će biti prodiskutovani.

Istraživanje je sprovedeno u okviru projekta “Efekti egzistencijalne nesigurnosti na pojedinca i porodicu u Srbiji” koji finansira Ministarstvo prosvete, nauke i tehnološkog razvoja Republike Srbije (ON179022).

*Ključne reči:* starije odraslo doba, stresni životni događaji, zadovoljstvo životom

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## Life events and satisfaction with life in older adults

Numerous research show that older adults are specific population regarding type, chronicity and perception of life events, as well as the effects of those events on satisfaction with life. The objective of this study was to identify the effect of certain stressful life events in the decline in satisfaction with life in older adults. 109 participants (18 male and 91 female) from 65 to 83 years old ( $M = 72.53$ ;  $SD = 5.19$ ) from territory of the Republic of Serbia, completed the following questionnaires - Stressful events inventory, constructed for the needs of this research, consisted of 15 events relevant for this population (criteria based on former research), administered to identify experienced stressful life events and Satisfaction With Life Scale, consisted of 5 items. Series of one-way analysis of variance was conducted using SPSS package for Windows. Results show significant differences on SWLS regarding these life events – retirement ( $F = 5.61, p < .05$ ), divorce or breakup of longterm relationship ( $F = 6.6, p < .05$ ), problems with law ( $F = 6.24, p < .05$ ), divorce or breakup of a family member ( $F = 5.86, p < .05$ ), and problems with law of a family member ( $F = 6.38, p < .05$ ). Statistically significant differences regarding other life events were not found. Results of this research suggest that retirement, divorce or breakup of longterm relationship, problems with law, divorce or breakup of a family member and problems with law of a family member statistically significantly effect a decline in subjective experience of satisfaction with life. These findings stress the importance of certain life events that older adults experience, as well as the importance of further research on their effects on mental health in order to prevent negative outcomes. The limitations of this research and the implications for future research are going to be discussed.

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**Keywords:** older adults, stressful life events, satisfaction with life



SOCIJALNA PSIHOLOGIJA



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## Essentialist beliefs, modern prejudice and affirmative behaviors towards homosexuals

Essentialist beliefs about social groups predict attitudes and discriminatory behaviors towards those same groups, especially when their members are stigmatized based on race, ethnicity, gender or sexual orientation. In the case of essentialist beliefs about homosexuality, certain beliefs seem to lead to more tolerance, while others are related to more negative views. Those who believe in the immutability and universality of homosexual orientation have more positive attitudes and are less inclined to discriminate against homosexuals, while those who believe in the discreteness and sharp boundaries of homosexuality have more negative attitudes and are more ready to discriminate against gays and lesbians. However, even if they are not willing to discriminate against sexual minorities it does not necessarily mean that people endorse lesbians and gays and their rights, because of a „silent majority“ that tacitly condones current unequal social status of sexual minorities. So it is also important to investigate in which ways essentialist beliefs toward homosexuality are associated with affirmative behaviors towards gays and lesbians such as intentions to participate in actions directed towards the amelioration of gays and lesbians' status. The same „silent majority“ will probably not be inclined to advertise their negative attitudes, but could nevertheless harbor modern prejudice toward gays and lesbians. So we were also interested in the mediating role of modern prejudice in the relationship between essentialist beliefs and affirmative behaviors. A total of 997 exclusively heterosexual women and men participated in an on-line study. We collected data on essentialist beliefs about homosexuality (Haslam & Levy, 2006), modern prejudice (Morrison & Morrison, 2002) and the propensity to engage in affirmative behaviors aimed to decrease discrimination towards gays and lesbians (developed for the purpose of this study). In accordance with our expectations, beliefs about universality and immutability were associated with less prejudice ( $r = -.630^{**}$ ;  $r = -.612^{**}$ ) and a higher willingness to engage in affirmative behaviors ( $r = .609^{**}$ ;  $r = .596^{**}$ ), and the beliefs about discreteness were associated with less willingness to participate

in affirmative social actions ( $r = -.544^{**}$ ) and more modern prejudice ( $r = .574^{**}$ ). Modern prejudice against homosexuals mediated around 80% of the relationship between essentialist beliefs about both universality and immutability and affirmative behaviors, and 85% of the relationship between essentialist beliefs about discreteness and affirmative behaviors. Findings have important practical implications, especially with regard to programs teaching tolerance towards gays and lesbians.

**Keywords:** essentialist beliefs, homosexuality, modern prejudice, affirmative behaviors

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### Potentialities of investigating followership behaviour in institutional settings

Followership represents courses of action in which a person formally assumes a subordinate position in a hierarchical structure and facilitates the leader to achieve organisational goals. Many people spend a lot of time pursuing the follower role, which determines their work contentment, as well as self-satisfaction and life satisfaction. The aim of this review of empirical studies is to point to the reasons why there is a much smaller body of followership research as opposed to investigations into the concepts of leadership, as well as to the potentialities of investigating it in organisational relationships.

Classic views in leadership have often focused strictly on the abilities of the leader, regarding followers as reactive parts of the system. There are commonly held assumptions that individuals instinctively know how to follow. However, recent research suggests that 80% of work which contributes to the success of organisational missions fall within followers' engagement, and that the role of follower includes active partnership and critical thinking. It has led to first followership theories, e.g. Kelly's theory of followership in organisational relations. Followership has been mainly explored in specific contexts such as wars and crises or military and manufacturing organisations. This leaves a space for

investigating followership in other organisational types, such as schools and hospitals because every formal structure may be a fertile ground for adverse consequences of negative forms of group behaviour. Research on followership to date has not considered sufficiently organisational followership preferences with respect to cultural values (e.g. collectivism, harm-avoidance), which allows their connection with contemporary theories on cultural values.

Although small in number, the existing data indicate intriguing findings. According to research, expected per cent of conformity in industrial companies ranges around 30%, which may undermine the development of these organisations. In a study conducted in Serbia, it has been established that followership teachers' styles differently contribute to work satisfaction: pragmatists, who rarely work more than required and dislike taking risks by voicing their opinions, tend to be more focused on extrinsic aspects of work; exemplary followers, being actively engaged and independent, are more satisfied with work and more focused on intrinsic work aspects.

The earlier definitions of followership highlight a human's need for personal development and improvement, and a need for security and personal protection. From this follows that the employees' behaviour may be positively influenced by creating better conditions of social support at work, and organisational ambience. The skills that exemplary followers possess may be learnt, which also creates an opportunity for improving educational programmes and trainings directed at the development of various work skills.

*Keywords:* followership, group behaviour, leadership, organisations.

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## Aktuelni položaj psihologa u centrima za socijalni rad

Pravilnikom o organizaciji, normativima i standardima rada centra za socijalni rad, predviđeno je da svi stručni radnici u Centrima za socijalni rad, pa i psiholozi, postanu voditelji slučaja koji su zaduženi za konkretan slučaj koji utvrđuju i koriste potrebne profesionalne i druge resurse iz centra ili iz drugih ustanova i

organizacija u lokalnoj zajednici, koji su neophodni za zadovoljavanje i prevazilaženje potreba i problema, odnosno pružanja odgovarajućih usluga korisniku. Cilj rada je da istakne značajnu promenu, pogoršanje, položaja u kome se nalaze psiholozi u sistemu socijalne zaštite i potrebu da se integritet struke zaštititi. Metod koji je primenjen u radu je proučavanje sadržaja normativnih akata kojima je sistem socijalne zaštite uređen. U tom smislu, važno je istaći, da psiholozi ne treba da stiču kompetencije da bi postali bolji voditelji slučaja, nego da treba insistirati na promeni regulative u oblasti socijalne zaštite koja bi omogućila psiholozima da se, isključivo, bave svojom strukom. Način da se ovaj problem prevazidje bio bi timski rad, u kome bi se svaki stručni radnik, pa i psiholog, bavio isključivo onim što je domen njegove struke ili, ukoliko se ne odstupi od metoda vođenja slučaja, da voditelji slučaja budu socijalni radnici, a da se psiholozi bave korisnicima samo u domenu svojih stručnih znanja.

*Ključne reči:* psiholog, voditelj slučaja, psihološka nauka

### The current position of psychologists in social welfare centres in Serbia

Ordinance on Organization, norms and standards of the center for social work, provided that all the professionals from the Centers for social work, as well as psychologists, become case managers who are responsible for the case, which determine and use the necessary professional and other resources from the center or from other institutions and organizations in the local community, which are essential for meeting and overcoming problems and needs, and providing appropriate services to the user. The aim is to highlight the significant change, deterioration, the position in which there are psychologists in social welfare system and the need to protect the integrity of the profession. The method applied in this paper is to study the contents of internal documents that the social security system arranged. In this regard, it is important to emphasize that psychologists should not acquire competence to become better managers of the case, but that it should insist on changing regulations in the field of social protection that would allow psychologists to exclusively, concerned with their profession. The way to overcome this problem would be to team work, which would each social worker and a psychologist, dealt exclusively with what is the domain of his profession or, if it does not depart from the method of case management, case managers to be social workers, that psychologists do users only in their domain of expertise.

*Keywords:* psychologist, case manager, psychological science

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## Ispitivanje relacije između afektivne vezanosti i homofobije

Unutrašnji radni model afektivnog vezivanja kao set afektivne komponente i uverenja o sebi i drugima, predstavlja referentni okvir za ponašanje osobe u različitim životnim oblastima. Homofobiju kao iracionalni strah od homoseksualno orijentisanih osoba, čine iracionalna uverenja, strah kao afektivna komponenta i izbegavajuće ponašanje kao bihevioralna komponenta. Primarni cilj istraživanja ticao se odgovaranja na istraživačko pitanje da li sigurna afektivna vezanost, reprezentovana niskom anksioznošću i niskim izbegavanjem bliskosti, predstavlja zaštitni faktor od homofobije, odnosno da li su sigurno afektivno vezane osobe manje sklone iracionalnim strahovima i izbegavajućem ponašanju prema homoseksualno orijentisanim osobama u poređenju sa osobama nesigurne vezanosti?

Istraživanje je sprovedeno na uzorku N = 537 ispitanika (N heteroseksualci = 405, N homoseksualci = 132), prosečne starosti 27 godina. Partnersku afektivnu vezanost merili smo Uпитnikom za procenjivanje partnerske afektivne vezanosti, Homofobiju smo merili Skalom homofobije. Regresionu analizu smo koristili za utvrđivanje predikcije dimenzija homofobije, a preko dimenzija afektivne vezanost - izbegavanja i anksioznosti.

Kod heteroseksualne grupe za 55.2 % ispitanika karakterističan je sigurni stil vezivanja, dok je u homoseksualnoj grupi 30.3% sigurno vezano, a ostali su nesigurno vezani, sa dominacijom preokupiranog stila, a što je skladu sa ranijim nalazima na muškarcima homoseksualcima. Niska anksioznost i nisko izbegavanje predviđaju visok skor samo na dimenziji homofobije – negativan efekat agresivnosti ( $F = 11.335$ ,  $p < .01$ ,  $\beta(\text{izbegavanje}) = -.160$ ,  $p < .01$ ,  $\beta(\text{anksioznost}) = -.178$ ,  $p < .01$ ) i to samo kod žena heteroseksualne orijentacije. Razlika u polu može biti posledicamalog broja muškaraca u grupi od 405 ispitanika heteroseksualne orijentacije (N = 67). Rezultat su neočekivani. Nalaz da je unutrašnji radni model sigurno afektivno vezanih osoba kao pozitivna reprezentacija sebe i drugih, faktor rizika od homofobije, interpretirano u pravcu da sigurno vezane žene uspostavljaju odnose pretežno sa heteroseksualcima i kada se radi o drugim bliskim

relacijama, kao što su prijateljske. Zbog toga im nedostaje iskustvo relacije sa homoseksualcima kako bi proverile i korigovale svoja uverenja, a koja su kulturno i socijalno uslovljena drugačijim načinom vaspitanja polova u pogledu polnog identiteta i rodnih uloga. Visoko izbegavanje i/ili anksioznost kod nesigurno vezanih ispitanika uslovljavaju udaljavanje fizičko i/ili mentalno od teme homoseksualnosti, a što je onda povezano sa izostankom agresivnih tendencija.

*Ključne reči:* afektivna vezanost, homofobija, seksualna orijentacija

### Examination of the relation between attachment and homophobia

The internal working model of attachment as a set of affective component and beliefs about oneself and others, constitutes a reference framework for person's behavior in different areas of life. Homophobia is an irrational fear of homosexually oriented people and it consists of specific irrational beliefs, fear, as an affective component, and avoidance behavior, as a behavioral component. The aim of this study was to investigate the relationship between the secure attachment, represented by the low level of anxiety and the low level of avoidance of closeness, and homophobia. The study was focused on the following research questions – is the secure attachment protective factor of homophobia and are the securely attached people less prone to specific irrational beliefs and avoidance behavior towards homosexually oriented people compared with people with insecure attachment?

The research was conducted on a convenience sample of N = 537 respondents (N = 405 heterosexuals), N = 132 homosexuals), with an average age of 27 years. Partner attachment was measured with Close Relationships Questionnaire, homophobia was measured using the The Homophobia Scale. Regression analysis was used to determine the prediction of homophobia dimensions using the dimensions of attachment - avoidance and anxiety.

Within the heterosexual group, 55.2% of respondents are securely attached as compared with 30.3% of homosexual subjects. In homosexual group, preoccupied style is dominant. The low level of anxiety and the low level of avoidance of closeness are predictors of high score only on one of homophobia dimensions – the negative affect of aggression ( $F = 11.335, p < .01, \beta(\text{avoidance}) = -.160, p < .01, \beta(\text{anxiety}) = -.178, p < .01$ ) and only among the female heterosexual subjects. The gender difference could be sequel of fewer male subjects (N (males) = 67 and N(females) = 338). The research findings showed that the internal working model

of securely attached people (women) is a risk factor for homophobia. This finding can be interpreted in context of how securely attached women generally connect with others (including friendships, relationships etc.). Their beliefs of homosexually oriented people are mostly culturally conditioned and those cannot be easily changed without the actual and direct experience with homosexuals. The high level of anxiety and/or avoidance within the people with insecure attachment probably cause physical and/or mental distancing from the homosexuality itself, which can be associated with the absence of aggression.

*Keywords:* attachment, homophobia, sexual orientation.

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### Izraženost stereotipa među psiholozima i psihijatrima prema osobama sa psihološkim teškoćama

Istraživanje je sprovedeno sa ciljem da se utvrdi izraženost stereotipa i socijalne distance prema osobama sa različitim vrstama psiholoških teškoća (anksiozni poremećaj, depresivni poremećaj, shizofrenija, zavisnost od alkohola i poteškoće u intelektualnom razvoju) kod profesionalaca u oblasti mentalnog zdravlja (psihologa i psihijatarata). Želeli smo da ispitamo da li postoje razlike u percepciji osoba sa različitim vrstama poremećaja od strane stručnjaka, nadve dimenzije, prema modelu Suzan Fiske, kao i razlike u stepenu socijalne distance (Fiske, Cuddy, Glick, & Xu, 2002). U prethodnim istraživanjima nađeno je da različite vrste obrazovanja mogu uticati na stepen izraženosti stereotipa, te da stručnjaci iz humanističkih profesija, kao što su psiholozi, na manje stereotipan način doživljavaju osobe sa psihološkim poteškoćama (Todor, 2012). Iz tih razloga smo želeli da istražimo da li će se javiti razlike između psihijatarata i psihologa. Istraživanje je sprovedeno u Beogradu, na uzorku psihijatarata i psihologa koji su zaposleni u institucijama mentalnog zdravlja (N = 63). Uzorak je sačinjavalo 39 psihijatarata i 24 psihologa. Ispitanici su iskazivali procene stepena u kome su različite pozitivne i negativne osobine karakteristične za osobe sa navedenim poremećajima. Skala je razvijena za potrebe istraživanja po ugledu na model sadržaja stereotipa –

Stereotype Content Model (SCM) i obuhvata osobine reprezentativne za dve dimenzije - toplina i kompetentnost (Fiske, Cuddy, Glick, & Xu, 2002). Za svaku od dimenzija je dato po pet stavki, odnosno po desetza svaku kategoriju od navedenih psiholoških poteškoća (pouzdanost  $\alpha = .92$ ). Na prilagođenoj Bogardusovoj skali ispitanici su izražavali u kojoj meri su im prihvatljivi različiti odnosi sa ovim osobama u odnosu na svaku od vrsta psiholoških poteškoća (Bogardus, 1932) (pouzdanost  $\alpha = .94$ ). Rezultati su pokazali da ne postoje statistički značajne razlike između psihologa i psihijatarata ni na jednom od dva indikatora (socijalna distanca:  $F(4,58) = 0.57, p > .05$ ; SCM:  $F(4,58) = 0.87, p > .05$ ). Takođe, ne postoji statistički značajna razlika između psihologa i psihijatarata u odnosu na godine radnog staža ( $F(8,114) = 0.77, p > .63$ ). Kada je reč o dimenzijama toplina i kompetencija na SCM, nismo dobili dve odvojene kategorije, kao što je dobijeno u originalnom istraživanju. Međutim, dobijene su razlike usadržaju stereotipa u zavisnosti od tipa poremećaja. Najveća izraženost stereotipa je registrovana prema osobama koje su zavisne od alkohola, a najmanji prema anksioznim poremećajima. Ovi rezultati su u skladu sa prethodnim istraživanjima sprovedenim u drugim zemljama (Sadler, Meagor, & Kaye, 2012). Čini se da je presudan faktor percepcije ovih osoba profesionalno opredeljenje, koje izmiruje razlike u pogledu obrazovanja.

*Ključne reči:* stereotipi, poremećaji, socijalna distanca, psiholozi i psihijatri

### Expression of stereotypes among psychologists and psychiatrists toward people with psychological difficulties

The research was conducted in order to determine the expression of stereotypes and social distance toward people with different types of psychological difficulties (anxiety disorder, depressive disorder, schizophrenia, alcohol dependence and intellectual disabilities) among professionals in the field of mental health (psychologists and psychiatrists). We wanted to examine whether there are differences in the perception of people with different types of disability by experts, within two dimensions, by the model of Susan Fiske, as well as differences in the degree of social distance (Fiske, Cuddy, Glick, & Xu, 2002). In previous studies it was found that different types of education may affect the level of expression of stereotypes, and that experts from the humanities professions, such as psychologists, perceive people with psychological difficulties in less stereotypical way (Todor, 2012). For these reasons, we wanted to explore whether it will be difference between psychiatrists and psychologists. The survey was conducted in Belgrade on a sample of psychiatrists and psychologists who work in mental health



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institutions (N = 63). The sample consisted 39 psychiatrists and 24 psychologists. Respondents were providing assessments of the degree to which the different positive and negative traits characteristic of persons with the aforementioned disorders. The scale was developed for research purposes emulating the content of stereotypes - Stereotype Content Model (SCM), and encompasses characteristics representative of two dimensions - warmth and competence (Fiske, Cuddy, Glick, & Xu, 2002). For each dimension was given five items, or ten for each category of these psychological problems (reliability  $\alpha = .92$ ). For custom Bogardus scale respondents expressed the extent to which they accepted different relations with these people in respect of each of the types of psychological distress (Bogardus, 1932) (reliability  $\alpha = .94$ ). The results showed that there were no statistically significant differences between psychologists and psychiatrists in either of the two indicators (social distance:  $F(4,58) = 0.57, p > .05$ ; SCM:  $F(4,58) = 0.87, p > .05$ ). Also, there was no statistically significant difference between psychologists and psychiatrists with respect to years of service ( $F(8,114) = 0.77, p > .05$ ). When it comes to the dimensions of warmth and competence in SCM, we didn't get two separate categories, as obtained in the original study. However, there were differences in the content of stereotypes, which were depending on the type of disorder. The highest expression of stereotypes is registered to persons who are dependent on alcohol, and the lowest by anxiety disorders. These results are consistent with previous studies conducted in other countries (Sadler, Meagor, & Kaye, 2012). It seems that the decisive factor in the perception of these persons is professional commitment, which further reduces differences with respect to the different education.

Keywords: stereotypes, disorders, social distance, psychologists, psychiatrists

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## Kad su i pojedinac i kontekst važni: autologistički modeli atributa aktera

U mnogim granama psihologije, a posebno u socijalnoj, organizacijskoj psihologiji i psihologiji zajednica, se ističe važnost utjecaja socijalnog konteksta pojedinca na njegovo ponašanje. Ipak većina istraživačkih nacrtu u psihologiji imaju individualizirani pristup ili uključuju varijable koje samo opisuju pripadnost i/ili karakteristike određene grupe kojoj pojedinac prema nekom kriteriju pripada. S druge strane, pristupu proizašlom iz analiza društvenih mreža (ADM) se zamjera ignoriranje atributa aktera u mreži i tretiranja svih aktera kao potpuno jednakih (koje definira njihova strukturalna pozicija), te zanemarivanja njihove osobne mogućnosti djelovanja. Cilj ovog rada je demonstracija nove metode proizašle iz potonjeg pristupa koja omogućava istovremeno uzimanje u obzir strukturalnih efekta mreže i atributa aktera u mreži u predviđanju ponašanja pojedinca – tzv. autologistički modeli atributa aktera (auto-logistic actor attribute models - ALAAM). Statistički modeli ADM su se brzo razvijali u posljednjih desetak godina, ali su većinom bili fokusirani na zaključivanje o strukturalnim svojstvima mreža. Jedan od češće korištenih pristupa su eksponencijalni modeli slučajnih grafova (exponential random graph models - ERGM). U okviru tog pristupa nedavno su razvijeni ALAAM koji u odnosu na prethodne modele socijalnog utjecaja omogućavaju testiranje većeg broja hipoteza o učincima mreže na relevantne ishode pojedinca. Osnovnu logiku, procedure, te interpretaciju ALAAM-a demonstriramo koristeći koautorske mreže znanstvenika iz RH iz dva polja znanosti: psihologije (N = 160) i sociologije (N = 136). Zavisna varijabla je suradnja sa znanstvenicima izvan nacionalne i/ili disciplinane zajednice. Konvergirani modeli pokazuju da kod psihologa ne postoji učinak mreže, a kod sociologa postoje dva značajna efekta: aktivnosti (-3.75;  $p < .05$ ) i popularnosti (1.62;  $p < .05$ ), dok efekt zaraze (contagion) nije značajan u oba polja. Od testiranih atributa aktera značajni prediktor u oba polja je broj više-autorskih radova, te broj ponovljenih koautorstva s istim autorom kod sociologa, dok spol, dob, lokacija, te broj jedno-autorskih radova nisu značajni prediktori. Robusnost modela smo testirali unosom dodatnih parametara za ispitivanje strukturalnih efekta i različitim cut-off-om zavisne

varijable. Rezultati sugeriraju da je na vanjsku suradnju, ovisno o njejoj operacionalizaciji, postoje različiti efekti mreže u dva istraživana polja. Razlike interpretiramo u svijetlu disciplinarnih razlika u provođenju istraživanja, te se osvrćemo na potencijal ALAAM-a u drugim kontekstima.

*Ključne reči:* autologistički modeli aktera atributa, statistička analiza društvenih mreža, znanstvene zajednice, vanjska suradnja

### Taking into account the individual and the context: Auto-logistic actor attribute models

We present the statistical method for testing hypotheses of social influence that originated in the field of social network analysis. The specificity of auto-logistic actor attribute models (ALAAM) is that it allows taking into account different structural effects, and at the same time, the effects of individual attributes when predicting the behaviour of the actor embedded in the network. It represents method that explicitly enables integration of typically individual research designs in psychology and system approach. We demonstrate its basic logic by applying it on prediction of external collaboration of scientists working in two fields of social sciences in Croatia: psychology and sociology. Results suggest that having external collaboration is network dependent in both fields, whilst some actor attributes also matter. We discuss the benefits and potential of this method for psychology in general.

*Keywords:* auto-logistic actor attribute models, statistical models of social networks, scientific communities, external collaboration

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### Kros-kulturalne razlike u zadovoljstvu životom kod studenata u Srbiji i Iranu

Zadovoljstvo životom je jedan od najvažnijih indikatora subjektivnog blagostanja, ali i pokazatelj koji se poslednjih nekoliko godina koristi kao relevantna mera

društvenog progresa, zbog uske povezanosti sa društveno-ekonomskim uslovima života. Cilj ovog kros-kulturalnog istraživanja je ispitivanje razlika u zadovoljstvu životom kod studenata u Srbiji i Iranu, kao i doprinosa zadovoljstva specifičnim domenima života opštem zadovoljstvu životom u ove dve države. Srbija i Iran imaju određene sličnosti koje se tiču, pre svega, loše ekonomske situacije, ali ih odlikuju i bitne razlike u društvenim vrednostima, pri čemu su u Iranu naglašenije konzervativne i patrijarhalne vrednosti, kao i veći uticaj religijskih institucija. Uzorak u Iranu je obuhvatio 317 studenata (55.5% žena), prosečne starosti 23.07 godina, dok je uzorak u Srbiji obuhvatio 304 studenata (45.4% žena), prosečne starosti 21.75 godina. Korišćeni su sledeći instrumenti: Personal Well-Being Index, za procenu zadovoljstva sa sedam domena života: životni standard, zdravlje, životna postignuća, odnosi sa drugim ljudima, osećaj sigurnosti, pripadnost zajednici i osećaj bezbednosti u budućnosti, i Satisfaction with Life Scale, koja meri opšte zadovoljstvo životom. Rezultati su pokazali da studenti u Srbiji ispoljavaju više (Cohen's  $d = .51$ ) globalno zadovoljstvo životom ( $M = 4.76$ ,  $SD = 1.12$ ), nego studenti u Iranu ( $M = 4.16$ ,  $SD = 1.25$ ). Rezultati MANOVE su pokazali da između ispitanika postoje značajne razlike i u zadovoljstvu specifičnim domenima života [Wilks  $\lambda = .72$ ,  $F(7,613) = 33.70$ ,  $p < .01$ ,  $\eta^2 = .28$ ]. Rezultati univarijantnih testova su pokazali da značajne razlike postoje na svim domenima, u smeru da studenti u Srbiji navode veće zadovoljstvo životom. Najveće razlike su dobijene u zadovoljstvu životnim postignućima (Srbija:  $M = 78.26$ ,  $SD = 17.89$ ; Iran:  $M = 55.93$ ,  $SD = 22.17$ ;  $\eta^2 = .24$ ) i zadovoljstvu životnim standardom (Srbija:  $M = 68.91$ ,  $SD = 19.98$ ; Iran:  $M = 55.27$ ,  $SD = 22.15$ ;  $\eta^2 = .10$ ), dok su najmanje razlike primetne u zadovoljstvu osećajem bezbednosti u budućnosti (Srbija:  $M = 67.34$ ,  $SD = 23.78$ ; Iran:  $M = 62.02$ ,  $SD = 25.65$ ;  $\eta^2 = .01$ ). Najsnažniji prediktor globalnog zadovoljstva životom kod studenata u Srbiji je zadovoljstvo životnim postignućima ( $\beta = .33$ ,  $p < .01$ ), a kod studenata u Iranu zadovoljstvo životnim standardom ( $\beta = .31$ ,  $p < .01$ ). Pored ova dva domena koji su se pokazali značajno povezani sa globalnim zadovoljstvom životom u obe države, jedini domen koji je i u Iranu i u Srbiji značajan prediktor zadovoljstva životom je doživljaj pripadnosti zajednici. Zadovoljstvo odnosima sa drugim ljudima je značajno povezano sa zadovoljstvom životom samo u Iranu. Navedeni rezultati ukazuju na bitnost društvenog konteksta u istraživanjima zadovoljstva životom.

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**Ključne reči:** zadovoljstvo životom, kros-kulturalna istraživanja, Srbija, Iran

## Cross-cultural differences in life satisfaction among students from Serbia and Iran

Life satisfaction is a key indicator of subjective well-being and an important measure of societal progress, closely related to socio-economic living conditions. The aim of the present cross-cultural study is twofold: a) to examine differences in life satisfaction between Serbian and Iranian students; 2) to investigate contributions of satisfaction with specific life domains to global life satisfaction across two countries. Both Serbia and Iran are faced with poor economic condition, but differ substantially in societal values, with a greater emphasis on conservative values and a greater influence of religious institutions in Iran. The Iranian sample consisted of 317 undergraduate students (55.5% females), with a mean age 23.07 years, while the Serbian sample included 304 undergraduate students (45.4% females), with a mean age 21.75 years. Two instruments were administered in the present study: 1) The Personal Well-Being Index, to assess satisfaction with the following seven domains: standard of living, health, achieving in life, relationships, safety, community-connectedness, and future security; 2) Satisfaction with Life Scale, to assess global life satisfaction. The results showed that Serbian students reported greater (Cohen's  $d = .51$ ) global life satisfaction ( $M = 4.76$ ,  $SD = 1.12$ ) than Iranian students ( $M = 4.16$ ,  $SD = 1.25$ ). The results of the MANOVA indicated large difference in domain satisfactions between two countries [Wilks  $\lambda = .72$ ,  $F(7,613) = 33.70$ ,  $p < .01$ ,  $\eta^2 = .28$ ]. The results of univariate tests showed that all domains contributed significantly to the differences between Serbia and Iran. The largest differences between Serbian and Iranian participants were obtained in satisfaction with achieving in life (Serbia:  $M = 78.26$ ,  $SD = 17.89$ ; Iran:  $M = 55.93$ ,  $SD = 22.17$ ;  $\eta^2 = .24$ ) and satisfaction with standard of living (Serbia:  $M = 68.91$ ,  $SD = 19.98$ ; Iran:  $M = 55.27$ ,  $SD = 22.15$ ;  $\eta^2 = .10$ ), while the smallest difference was observed in satisfaction with future security (Serbia:  $M = 67.34$ ,  $SD = 23.78$ ; Iran:  $M = 62.02$ ,  $SD = 25.65$ ;  $\eta^2 = .01$ ). Multiple regression analysis showed that the strongest predictor of global life satisfaction in Serbia was satisfaction with achieving in life ( $\beta = .33$ ,  $p < .01$ ), while satisfaction with standard of living was the strongest predictor of life satisfaction in Iran ( $\beta = .31$ ,  $p < .01$ ). These two domains, along with satisfaction with community were significantly associated with global life satisfaction in both countries. Satisfaction with personal relationships contributed significantly to global life satisfaction only in Iran. The present findings emphasize the importance of social context in the research on life satisfaction.

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Keywords: life satisfaction, cross-cultural research, Serbia, Iran

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## Odnos otkrivanja informacijai činjenja i doživljavanja nasilja preko interneta

Otkrivanje informacija o sebi u kontekstu informacijsko-komunikacijskih tehnologija (IKT) omogućuje različite, pa i nepoželjne posljedice. Često se mogu čuti javna upozorenja, namijenjena osobito djeci i mladima, o važnosti opreza pri otkrivanju vlastitih informacija na internetu. Istovremeno, otkrivanje određenih informacija o sebi koristimo i u svrhu samoprezentacije i upravljanja dojmom o sebi. Imajući to na umu jasno je da odabir koje informacije i kada te kome sve otkriti putem IKT-a uključuje pažljivo uspostavljanje ravnoteže. Uobičajeno je povezivati otkrivanje informacija o sebi s povećanjem vjerojatnosti da doživimo nasilje preko interneta ili uživo. Cilj ovog istraživanja je bio provjeriti odnos otkrivanja informacija i činjenja i doživljavanja nasilja preko interneta na skupini osnovnoškolaca. Istraživanje je provedeno na 505 učenika viših razreda (od toga 258 dječaka) iz četiri osnovne škole sa šireg područja grada Osijeka. Osim demografskih varijabli sudionici su popunili Skalu doživljavanja i činjenja nasilja preko interneta te Skalu otkrivanja informacija na internetu. Utvrđeno je kako učenici šestih razreda ( $F(3,468) = 6.678$ ,  $p = .000$ ) i djevojčice ( $F(1,468) = 42.219$ ,  $p = .000$ ) iskazuju niže razine otkrivanja informacija na internetu nego dječaci i stariji učenici. U razini doživljenog nasilja mlađi sudionici izvještavaju o manjim razinama doživljenog nasilja ( $F(3,473) = 5.492$ ,  $p = .001$ ). Što se tiče samoiskazanog činjenja nasilja preko interneta, dječaci izjavljuju da češće čine nasilje ( $F(1,467) = 5.191$ ,  $p = .023$ ). Također, učenici osmog razreda su češće nasilni preko interneta od učenika petog i šestog razreda ( $F(3,467) = 5.541$ ,  $p = .001$ ). Kada je kao kriterijska varijabla odabrano doživljeno nasilje preko interneta, dob sudionika ( $\beta = .083$ ,  $p = .034$ ) i činjenje nasilja preko interneta ( $\beta = .560$ ,  $p = .000$ ) objasnili su oko 33% varijance kriterija ( $F(4,454) = 55.59$ ,  $p = .000$ ). Značajni prediktor činjenja nasilja, osim doživljenog nasilja ( $\beta =$

.517,  $p = .000$ ) bilo je i otkrivanja informacija na internetu ( $\beta = .235$ ,  $p = .000$ ), pri čemu je objašnjeno 38% varijance činjenja nasilja ( $F(4,454) = 69.63$ ,  $p = .00$ ). Podaci očekivano ukazuju da su dječaci i stariji učenici skloniji više činiti nasilje preko interneta, a donekle neočekivanim bi se mogao smatrati nalaz da otkrivanje informacija doprinosi objašnjenju činjenja, ali ne i doživljavanja nasilja preko interneta. Ovi podaci mogu ukazivati da otkrivanje informacija, suprotno raširenom mišljenju prema kojem ono povećava vulnerabilnost pojedinca, ukazuje na sklonost rizičnijem ponašanju (npr. ignoriranju upozorenja o potencijalnim opasnostima koje iz toga proizlaze).

*Ključne reči:* otkrivanje informacije, činjenje nasilja preko interneta, doživljavanje nasilja preko interneta

### Information disclosure and committing and experiencing of cyberbullying

The information disclosure in the context of information-communication technologies (ICT) enables different consequences, including negative ones. Public warnings, especially those intended to children and youth, are often and done with aim to raise awareness about challenges of information disclosure. In the same time, revealing certain information about themselves is used for self-presentation and impression management. Having that in mind, choosing of information that we tend to post, and choosing time of posting and audience clearly includes careful balancing. It is common to relate information disclosure with higher possibilities of experiencing cyberbullying or bullying. Main goal of this research was to explore relation of information disclosure and committing and experiencing of cyberbullying in elementary school pupils' sample. The research was conducted on 505 elementary school pupils (258 boys), from fifth to eighth grade. Participants answered on demographic questionnaire, Cyber victim and bullying scale and Information disclosure scale. It is found that sixth grade pupils ( $F(3,468) = 6.678$ ,  $p = .000$ ), and girls ( $F(1,468) = 42.219$ ,  $p = .000$ ) disclose less information via internet compared to older pupils and boys. In addition, younger pupils reported that they experience less cyberbullying than older pupils ( $F(3,473) = 5.492$ ,  $p = .001$ ). Regarding self-reported committing of cyberbullying, eighth graders were more violent than fifth and sixth graders ( $F(3,467) = 5.541$ ,  $p = .001$ ). With experiencing cyberbullying as criterion, age ( $\beta = .083$ ,  $p = .034$ ), and committing cyberbullying ( $\beta = .560$ ,  $p = .000$ ) explained around 33% variance of criterion ( $F(4,454) = 55.59$ ,  $p = .000$ ). Significant predictors with committing cyberbullying as

criterion were experienced cyberbullying and ( $\beta = .517, p = .000$ ), and information disclosure ( $\beta = .235, p = .000$ ). These predictors explained 38% variance of committing cyberbullying ( $F(4,454) = 69.63, p = .00$ ). As expected, data show that boys and older pupils are more prone to commit cyberbullying, but somewhat unexpected was that information disclosure explains only committing, and not experiencing cyberbullying. This data could indicate that, against widespread opinion that information disclosure promotes vulnerability, it actually points to riskiness (e.g. ignoring warnings about potential risks that it brings).

**Keywords:** information disclosure, committing cyberbullying, experiencing cyberbullying

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### Povezanost osobina ličnosti i problematičnog korišćenja Interneta kod starijih srednjoškolaca

U radu je prikazano ispitivanje povezanosti problematičnog korišćenja Interneta sa osobinama ličnosti starijih srednjoškolaca. U skladu sa rezultatima prethodnih istraživanja očekivano je da će viši skorovi na skalama Ekstraverzije i Otvorenosti prema iskustvu biti povezani sa problematičnijim korišćenjem Interneta. U istraživanju je učestvovao 751 ispitanik, pri čemu je 429 ispitanika bilo muškog pola. Ispitanici su bili ujednačeni po godinama starosti, odnosno, uzorak su činili učenici četvrtih razreda srednjih škola koji su u trenutku popunjavanja upitnika bili punoletni. Ispitanici su se razlikovali prema vrsti škole koju pohađaju, tačnije prema tome da li pohađaju gimnaziju ili stručnu školu (srednju Medicinsku, Mašinsku, Građevinsku i Poljoprivrednu školu). Korišćeni instrumenti bili su Online Cognition Scale i inventar ličnosti Velikih pet plus dva. Povezanost osobina ličnosti sa problematičnim korišćenjem Interneta ispitivana je statističkim postupkom višestruke regresije. Rezultati su ukazali na postojanje statistički značajne povezanosti, pri čemu osobine ličnosti objašnjavaju 20% varijanse problematičnog korišćenja Interneta ( $F(7,743) = 26.88, p < .001$ ). Detaljnijim uvidom u rezultate može se zaključiti da značajan doprinos problematičnom korišćenju Interneta daju viši



skorovi na skalama Neuroticizma ( $\beta = .24, p = .00$ ) i Negativne valence ( $\beta = .09, p = .04$ ), te niži skorovi na skali Savesnosti ( $\beta = -.21, p = .00$ ). Suprotno očekivanjima, skorovi na skalama Ekstraverzije nisu bili povezani sa problematičnim korišćenjem Interneta. Ovakvi nalazi ukazuju da bi se osobe koje pokazuju više skorove na skali problematičnog korišćenja Interneta mogle okarakterisati kao visoko reaktivne na ugrožavajuće stimulse, sklone doživljavanju anksioznosti, depresivnom raspoloženju, osećaju niže vrednosti, te samokriticizmu. Takođe, karakteriše ih loš odnos prema obavezama, niska samodisciplina kao i niska istrajnost. Dobijeni rezultati predstavljaju potvrdu velikog broja prethodnih istraživanja.

*Ključne reči:* problematično korišćenje Interneta, osobine ličnosti, višestruka regresija

### Relationship between personality traits and the problematic Internet use among older high school students

The paper presents the relationship between the problematic Internet use and personality traits among older high school students. In accordance with previous findings it is expected that higher scores on the scale of extraversion and openness to experience to be associated with problematic Internet use. The study involved 751 participants, where 429 respondents were male. The subjects were matched for age, ie, the sample consisted of students of high school seniors who are at the time of completing the questionnaire were of legal age. Respondents differed according to the type of school they attend, more precisely according to whether attending high school or vocational school (middle of Medicine, Engineering, Construction and Agricultural school). Instruments used were: Online Cognition Scale and Personality Inventory Big five plus two. Correlation between personality traits with problematic use of the Internet was investigated with statistical procedure of multiple regression. The results showed a statistically significant correlation, with personality traits explained 20% of variance of the problematic Internet use ( $F(7,743) = 26.88, p < .001$ ). With a closer look at the results it can be concluded that a significant contribution to the problematic Internet use by the higher scores on the neuroticism scale ( $\beta = .24, p = .00$ ) and negative valence ( $\beta = .09, p = .04$ ), and lower scores on a scale Conscientiousness ( $\beta = -.21, p = .00$ ). Contrary to expectations, the scale of extraversion scores were not associated with the problematic Internet use. These findings suggest that persons who show higher scores on the scale of problematic Internet use could be described as highly reactive to threatening stimuli, prone to experiencing anxiety, depressed mood,

sense of inferiority and self-criticism. Also, they are characterized by poor treatment of liabilities, low self-discipline and low persistence. The obtained results confirm the large number of previous studies.

Keywords: problematic Internet use, personality traits, multiple regression

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## Pozitivni i negativni aspekti onlajn emocionalnih veza iz ugla teoretičara i adolescenata

Za razliku od ranih istraživanja i tumačenja rezultata, danas se generalno ne smatra da intenzivna upotreba interneta i komunikacija putem istog ima negativne efekte na socijalne interakcije osobe. Međutim, postoje specifični onlajn odnosi u vezi sa kojima su mišljenja o pozitivnim i negativnim aspektima podeljena. Upravo to je slučaj sa emocionalnim, odnosno ljubavnim onlajn vezama. Iz ugla teoretičara, pozitivni aspekti ovakvog odnosa bi bili dezinhibicija, brže ulaženje u bliski odnos (hiperpersonalna teorija) i mogućnost prezentovanja istinskog selfa. Eksperimentisanje sa identitetima može imati i pozitivne i negativne aspekte, a ostale negativne aspekte objašnjavaju fenomen anonimnosti na internetu i mogućnost za planirano građenje utiska, kao i teorije socijalnog prisustva i socijalnih znakova. U sprovedenom istraživanju želeli smo da utvrdimo kojih pozitivnih i negativnih aspekata onlajn emocionalnih veza su svesni sami adolescenti. U istraživanju je učestvovalo 156 ispitanika iz perioda srednje adolescencije (77 mladića i 79 devojaka; uzrasta od 14 do 18 godina) i 145 ispitanika iz perioda kasne adolescencije (46 mladića i 99 devojaka; uzrasta od 20 do 24 godine). Ispitanici su popunili upitnik sastavljen za potrebe istraživanja, koji je sadržao i otvorena pitanja o pozitivnim, odnosno negativnim aspektima onlajn ljubavnih veza. Ukratko sumirani, rezultati pokazuju da sve devojke iz uzorka, bez obzira na uzrast i iskustvo sa onlajn vezama, ukazuju na pozitivne aspekte koje obuhvata dezinhibicija i ispoljavanje istinskog selfa. Najčešće navođeni negativni aspekti

vezani su za anonimnost i plansko građenje utiska, ujedno i za nedostatak socijalnih znakova u stvaranju slike o onlajn partneru. Devojke iz kasne adolescencije su u većem broju smatrale da onlajn veze nemaju pozitivne aspekte i isticale nemogućnost fizičkog kontakta kao značajnu prepreku u vezi. Mladići u srednjoj adolescenciji, koji nisu imali onlajn veze, ne vide njihove potencijalne pozitivne aspekte; oni koji su imali onlajn veze navode pozitivne aspekte iz domena eksperimentisanja i onlajn socijalne podrške. Mladići u kasnoj adolescenciji koji su imali onlajn veze navode pozitivne aspekte iz domena dezinhibicije i eksperimentisanja, a, kao i oni koji nisu imali onlajn veze, smatraju da su negativni aspekti vezani za nemogućnost fizičkog kontakta. Ovi rezultati pokazuju da mišljenja adolescenata o pozitivnim i negativnim stranama onlajn veza zaista uključuju sve aspekte koje obuhvataju teorije. Primećen još jedan značajan pozitivan aspekt, a to je pružanje socijalne podrške kroz onlajn ljubavnu vezu. Isticanje nedostatka fizičkog kontakta kod starijih adolescenata prepoznaju i teoretičari, ističući da uspešna onlajn ljubavna veza može i treba da pređe u „pravu“, onlajn vezu.

*Ključne reči:* onlajn emocionalni odnosi, adolescenti, onlajn dezinhibicija, prezentovanje „istinskog“ selfa

### Positive and negative aspects of online emotional relationships from the perspective of theoreticians and adolescents

Contrary to the previous investigations and interpretations of their results, nowadays the intensive use of the Internet and the Internet communication are not considered to have negative effects to a person's social interactions. However, there are specific online relationships on which opinions, concerning their positive and negative effects, are divided, as it is the case with online emotional affairs, i.e. online love affairs. From the perspective of theorists positive aspects of this relationship are disinhibition, establishing a closer relationship faster (hyperpersonal theory) and possibility of presenting the "true" self. Experiments with identities could have both positive and negative effects, while remaining negative aspects explain the phenomenon of anonymity on the Internet and the possibility of impression management and social presence theory and context cue theory as well. In this research we wanted to know which positive and negative aspects of online relationships the adolescents themselves are aware of. The research included 156 participants of the age of middle adolescence (77 males and 79 females aged 14 to 18) and 145 participants of the age of late adolescence (46

males and 99 females aged 20 to 24). The participants filled in the questionnaire designed to meet the research needs, which also contained open questions on positive and negative effects of online love affair aspects. Shortly summarised, the results show that all girls included in the sample, regardless of their age and experience in online relationships, indicate positive aspects including disinhibition and presenting the “true” self. As the negative aspects the most frequently cited were anonymity and impression management as well as lack of social context cues for creating the image of an online partner. The large number of girls considered that online relationships did not have positive aspects and emphasised the inability of physical contact as an important obstacle in a relationship. Boys of the age of middle adolescence who did not have online relationships could not see positive aspects in them, while those who had online relationships cited positive aspects of the domain of experimentation and online social support. Boys of the age of late adolescence who had online relationships cited positive aspects of the domain of disinhibition and experimenting and considered that negative aspects related to the inability of physical contact as well as boys who did not have online relationships. These results show that opinions of adolescents on online relationships involve all aspects included in the theories. Another important aspect was also perceived and it relates to giving a social support thanks to online love affair. Theorists also recognise lack of physical contact in older adolescents emphasising that a successful online relationship can and should grow into a “real” offline relationship.

*Keywords:* online emotional relationships, adolescents, online disinhibition, presenting the „true“ self

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## Prediktori autoritarnosti kod studenata srpskih univerziteta

Koncept i određenja autoritarnosti su se tokom decenija sve više razvijali, a definicije su postajale sve konkretnije. Brojni teorijski modeli iz domena, prvenstveno, psihologije ličnosti i socijalne psihologije bili su osnov za razumevanje ove pojave i objašnjenja individualnih razlika, te uzroka i posledica autoritarnosti.

Značajan doprinos čini dovođenje u vezu mnogih sociodemografskih varijabli sa pomenutim konceptom, ali istraživanja rađena na tu temu, posebno u regionu u kom živimo, ne daju jednoznačne rezultate, a često se ne poklapaju ni sa rezultatima dobijenim u zapadnjačkoj kulturi, koji će, kao konzistentniji, služiti kao smernica u ovom istraživanju. Sa druge strane, koncept kolektivizma se u brojnim istraživanjima dovodio u vezu sa autoritarnošću, najčešće sa idejom da autoritarnost u svojoj osnovi sadrži verovanje da su grupni ciljevi nadređeni u odnosu na individualne, i da su autoritarne vođe, istorijski gledano, najbolje prihvatane u kolektivističkim društvima. Prema tome, nije neopravdano očekivati da kolektivizam može imati svoju ulogu u predviđanju autoritarnosti.

Cilj ovog rada jeste proveriti doprinos različitih sociodemografskih varijabli i konstrukta kolektivizma/individualizma u objašnjenju izraženosti autoritarnosti kod studenata srpskih univerziteta. Uzorak je sačinjen od 716 studenata svih nivoa studija, oba pola (428 žena, 283 muškaraca, i 5 ispitanika koji nisu dali podatak o polu), svih fakulteta i visokih škola u okviru Univerziteta u Novom Sadu i većine fakulteta i visokih škola sa Beogradskog univerziteta. Prosečna starost ispitanika je 21,43 godine. Za potrebe istraživanja korišćene su skale za procenu autoritarnosti, UPA-S ( $\alpha = .93$ ), skraćena verzija skale za procenu individualizma i kolektivizma, KOIN-2002 ( $\alpha = .81$ ) i kratak upitnik o pojedinim sociodemografskim varijablama. Unutrašnja konzistentnost je zadovoljavajuće visine.

Sprovedena linearna regresija ukazala je da se kao značajni prediktori autoritarnosti izdvajaju kolektivizam ( $\beta = .49$ ), pol ispitanika ( $\beta = -.13$ ), vrsta studija (studenti društveno humanističkih studija imaju manje izraženu autoritarnost u odnosu na ostale studente;  $\beta = .13$ ) i materijalno stanje ispitanika ( $\beta = .09$ ). Navedeni prediktori zajedno objašnjavaju 33% varijanse ( $R^2 = .33$ ). Dobijeni rezultati nas upućuju na to da se izraženija autoritarnost može očekivati kod studenata koji su muškog pola, koji su skloniji kolektivizmu u odnosu na individualizam i onih koji imaju bolje materijalno stanje. Sa druge strane, niže izraženu autoritarnost možemo očekivati kod studenata društveno-humanističkih nauka. Pomenuti nalazi nisu u skladu sa rezultatima istraživanja u zapadnoevropskim zemljama koji se odnose na pol i materijalno stanje studenata i služe kao doprinos za bolje razumevanje autoritarnosti i njenih uzroka i posledica na našim prostorima.

*Ključne reči:* autoritarnost, individualizam, kolektivizam, sociodemografski prediktori autoritarnosti

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## Predictors of authoritarianism in students of Serbian universities

The concept and of authoritarianism have developed increasingly over the decades, and the definitions have become more specific. Numerous theoretical models were the foundation for the explanations of individual differences as well as the causes and consequences of authoritarianism. A significant contribution is made by establishing relationships between many sociodemographic variables and the concept in question. The research on this subject, particularly in the region where we live, fails to provide unambiguous results, and the results themselves often differ from those obtained in Western cultures, those which will, being more consistent, serve as guidelines in this study. On the other hand, in numerous researches the concept of collectivism has been brought in connection with authoritarianism, with the idea that, within it's core, authoritarianism holds the belief that the goals of a group take precedence over those of an individual and, furthermore, from a historical perspective, that authoritarian leaders are best accepted in collectivist societies. Therefore, it would not be unwarranted to expect that collectivism may have a role in predicting authoritarianism. The aim of this study is to determine the contribution of different sociodemographic variables and constructs of collectivism/individualism in explaining the presence of authoritarianism among the students of Serbian universities. The sample group consists of 716 students of all levels of study, both sexes (428 female, 283 male and 5 respondents who had chosen not to disclose this information), from all faculties and colleges in Novi Sad and most colleges and faculties of the University of Belgrade. The average age of respondents was 21.43. For the purposes of the research, we have used the scale for the assessment of authoritarianism UPA-S ( $\alpha = .93$ ), an abridged version of the scale for evaluation of individualism and collectivism KOIN-2002 ( $\alpha = .81$ ) and a short questionnaire regarding specific sociodemographic variables. The internal consistency is of a satisfactory degree. The applied linear regression indicated that collectivism ( $\beta = .49$ ), sex ( $\beta = -.13$ ), field of study ( $\beta = .13$ ) and economic status of the respondents distinguish themselves as significant predictors of authoritarianism. The predictors combined account for the 33% variance ( $R^2 = .33$ ). Results obtained indicate that an emphasized degree of authoritarianism may be expected among male students who are more inclined towards collectivism rather than individualism and those of a higher economic status. On the other hand, a less emphasized degree of authoritarianism may be expected among students engaged in social and humanistic studies. These results are not in line with the results of studies carried out in Western European countries

and which take into account gender and economic status of students, and they serve as a contribution towards a better understanding of authoritarianism within our region.

Keywords: authoritarianism, individualism, collectivism, sociodemographic predictors of authoritarianism

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### Prediktori sportskog klađenja

Sportsko klađenje predstavlja kompleksnu socijalnu aktivnost čijem je izučavanju neophodno pristupiti holistički, uzimajući u obzir sociodemografska obeležja kao i individualne razlike u dispozicionim karakteristikama, obuhvatajući ispitanike različitog pola, uzrasta, materijalnog statusa i obrazovanja. Reč je o fenomenu koji zahvata sve aspekte života ne samo individue i porodice, već i društva u celini, a koji u modernom društvu sve više dobija na značaju. Istraživanje je sprovedeno sa ciljem da se utvrde faktori koji doprinose verovatnoći upuštanja u sportsko klađenje. Na prigodnom uzorku od 202 ispitanika, (54.95% ženskog pola), starosti od 16 do 61 (AS = 29.52, SD = 7.85), različitih nivoa obrazovanja, primenjeni su Upitnik za procenu osetljivosti na potkrepljenje, Upitnik sociodemografskih karakteristika, kao i jednoajtemska mera upuštanja u sportsko klađenje, formulisana pitanjem „Da li se kladite u sportskim kladionicama?“, sa binarnim formatom odgovora („da“ ili „ne“). Utvrđeno je da je 60 ispitanika iz našeg uzorka (29,70%) odgovorilo potvrdno, što je u skladu sa proporcijom nalaza ranijih istraživanja. U svrhu utvrđivanja prediktora sportskog klađenja sprovedena je hijerarhijska binarna logistička regresiona analiza, sa uzimanjem učešća u sportskom klađenju kao zavisnom varijablom. U prvom koraku u regresioni model unete su sociodemografske varijable – pol, starost, materijalni status i obrazovanje. Rezultati su pokazali da model objašnjava između 17% (R<sup>2</sup> Koxsa i Snela) i 24%

varijanse ( $R^2$  Nagelkerkea) verovatnoće sportskog klađenja ( $\chi^2(4,202) = 36.62, p < .001$ ). U drugom koraku prediktorskom skupu pridružene su i dimenzije Grejove revidirane Teorije osetljivosti na potkrepljenje – sistem osteljivosti na signale kazne koji odgovara dimenziji anksioznosti i uključuje procenu rizika; osetljivost na signale nagrade koji odgovara dimenziji impulsivnosti; i Borba/Bežanje/Blokiranje – agresivni, izbegavajući i blokirajući odgovori na percepciju pretnje. Uvođenjem varijabli ličnosti u regresionu jednačinu, eksplanatorna moć modela poboljšana je ( $\chi^2(9,202) = 49.21, p < .001$ ) tako da se proporcija varijanse objašnjene prediktorskim skupom kreće između 22% ( $R^2$  Koxsa i Snela) i 31% ( $R^2$  Nagelkerkea). Konačni model tačno klasifikuje 73,8% slučajeva, a kao značajni samostalni prediktori sportskog klađenja izdvojili su se: pol (količnik verovatnoće = 0.16), borba (količnik verovatnoće = 1.61) i bežanje (količnik verovatnoće = 0.62). Ispitanici muškog pola, koji postižu više skorove na dimenziji borba, a niže skorove na dimenziji bežanje, češće izveštavaju o učestvovanju u sportskom klađenju. Moguće je da individue sportsko klađenje percipiraju kao sredstvo suočavanja sa pretnjom, gde svoje agresivne impulse mogu da ispolje kroz kompeticiju. Dobijeni rezultati ukazuju na relativni značaj dispozicionih karakteristika kao važnog faktora sportskog klađenja, u odnosu na uticaj socioekonomskog statusa.

*Ključne reči:* sportsko klađenje, kockanje, revidirana Teorija osetljivosti na potkrepljenje, osobine ličnosti, socioekonomski status

### Sports betting predictors

Sports betting is a complex social activity which needs to be studied holistically, taking into account both socio-demographic characteristics and dispositional individual differences, including subjects of different gender, age, financial status and education. It is a phenomenon that is increasingly gaining importance in modern society, given that it affects all aspects of not only individual's life and family, but also society as a whole. The research was conducted in order to determine the factors that contribute to engaging in sports betting. A total of 202 respondents (54.95% females), age 16 to 61 ( $M = 29.52, SD = 7.85$ ), with various levels of education, completed The Reinforcement Sensitivity Questionnaire; a short questionnaire regarding socio-demographic characteristics; as well as one-item measure of sports betting engagement, i.e. the question "Do you practice sports betting?", with a response in a form of binary choice ("yes" or "no"). It was found that 60 participants (29.70%) answered affirmatively, which is in accordance with the results of earlier research. In order to determine sports betting predictors



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a hierarchical binary logistic regression analysis was conducted, taking the participation in sports betting as the dependent variable. In the first step in the regression model we entered the socio-demographic variables - gender, age, financial status and education. The results showed that the model accounts for between 17% (Cox & Snell R<sup>2</sup>) and 24% of the variance (Nagelkerke R<sup>2</sup>) of sports betting ( $\chi^2(4,202) = 36.62, p < .001$ ). In the second step, the predictor set also included five Gray's revised Reinforcement sensitivity theory dimensions - behavioral inhibition system that corresponds to the dimension of anxiety and includes risk assessment; behavioral activation system corresponding to the dimension of impulsivity; and the Fight / Flight / Freeze - aggressive, avoidant and blocking responses to the perception of threat. After introducing the personality variables into the regression equation, the explanatory power of the model was improved ( $\chi^2(9,202) = 49.21, p < .001$ ) so that the proportion of variance explained by predictor set ranged between 22% (Cox and Snell R<sup>2</sup>) and 31% (Nagelkerke R<sup>2</sup>). The final model classified 73.8% of cases correctly, and the significant individual predictors of sports betting were found to be: gender (odds ratio = 0.16), Fight (odds ratio = 1.61) and Flight (odds ratio = 0.62). Participants who were male, who scored higher in Fight, and lower in Flight, were more likely to report engaging in sports betting. It is possible that individuals perceive betting as a means of coping with the threat, where their aggressive impulses may be expressed through competition. The results indicate the importance of dispositional characteristics as a significant sports betting factor, above and beyond the impact of socioeconomic status.

**Keywords:** sports betting, gambling, revised Reinforcement sensitivity theory, personality traits, socioeconomic status

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## Psihološki i socijalni indikatori bezbednosti mladih na jugoistoku Srbije

Bezbednost pojedinca je istovremeno osećaj i realnost. Realna procena bezbednosti je u velikoj meri matematički problem, koji se bazira na proceni rizika i verovatnoći ispoljavanja određenih posledica. Sa druge strane, osećaj sigurnosti je složen psihološki konstrukt i uključuje percepciju sopstvene i kolektivne bezbednosti, koja počiva na latentnim predstavama, stavovima, karakteristikama ličnosti i kognitivnim mehanizmima pojedinca. Drugim rečima, možete biti bezbedni, a da se pri tom ne osećate sigurno, i obrnuto, osećati se sigurno onda kada niste. Prepoznajući značaj i potrebu za unapređenje bezbednosne pozicije mladih na jugu i jugoistoku Srbije, Misija OEBS-a u Srbiji u saradnji sa lokalnim samoupravama i organizacijama civilnog društva, sprovodi niz istraživanja koji doprinose definisanju i implementaciji Strategije bezbednosti mladih. Fokus je na prepoznavanju specifičnih problema života mladih u njihovi lokalnim sredinama. Prvo u nizu istraživanja je sprovedeno u Nišu 2013. godine, što je doprinelo usvajanju dokumenta „Strategija bezbednosti mladih Grada Niša“. Ovo istraživanje predstavlja osnovu za izgradnju strategija bezbednosti drugih gradova.

Istraživanje koje je sprovedeno u Zaječaru u maju 2015. godine je sprovedeno na uzorku od 339 mladih iz Zaječara, uzrasta od 15 do 30 godina starosti. Uzorak je odabran proporcionalno u odnosu na populacijski parametar i obezbeđuje nivo pouzdanosti od 95% uz marginu greške +/-5. U skladu sa populacionom strukturom, proporcionalno, je formirana struktura uzorka ispitanika prema parametrima: starost, pol, obrazovni status, radni status. Cilj istraživanja je bio da pruži empirijske informacije o stavovima mladih u Zaječaru o bezbednosti ovog grada, zatim o njihovoj informisanosti, kao i spremnosti da aktivno učestvuju u političkom i društvenom odlučivanju. Pri tome su obuhvaćene sledeće kategorije bezbednosti: 1) Opšta bezbednost - ključni indikatori sigurnosti i identifikacija glavnih problema koji narušavaju bezbednost mladih; 2) Ekonomska bezbednost (rad - nezaposlenost, siromaštvo, prava zaposlenih, trgovina - kvalitet robe i usluga); 3) Socijalna bezbednost (zdravlje, dostupnost i zloupotreba psihoaktivnih supstanci, briga o reproduktivnom zdravlju, poštovanje ljudskih prava i prava manjina, bezbednost u saobraćaju, nasilje, kriminal, rizično ponašanje, bezbednost na

internetu); 4) Društveno-politička odgovornost - aktivizam i informisanost mladih; 5) Bezbednost u kriznim situacijama; 6) Briga o životnoj sredini. Mladi u Nišu i Zaječaru kao osnovne probleme bezbednosti navode: nezaposlenost, siromaštvo, kriminal, neinformisanost i neravnopravnost, odnosno nepoštivanje prava manjina. Rezultati detaljno rasvetljavaju odnos između psiholoških i realnih indikatora bezbednosti u ovom gradu i mogu se interpretirati šire u domenu stavova i vrednosti mladih na ovm kulturnom području.

*Ključne reči:* procena bezbednosti, sigurnost, mladi

### Psychological and social indicators of youth security in the southeast Serbia

Individual security is a feeling and also a reality. Real safety assessment was largely mathematical problem, which is based on risk assessment and probability of manifestation of certain consequences. On the other hand, the feel of security is a complex psychological construct and involves the perception of their own and collective security, which is based on latent notions, attitudes, personality characteristics and cognitive mechanisms of the individual. In other words, you can be safe, and that when you do not feel safe, and conversely, to feel safe when you're not. Recognizing the importance and need for improvement of the security position of youth in the south and southeast Serbia, the OSCE Mission to Serbia in cooperation with local governments and civil society organizations, is conducting a series of studies that contribute to the development and implementation of youth safety strategy. The focus is on identifying specific problems of life of young people in their local communities. The first in a series of studies was conducted in Nis in 2013, which contributed to the adoption of the document "Strategy for youth safety the city of Nis". This research is the basis for building a security strategy other cities.

Research conducted in Zaječar in May 2015 was conducted on a sample of 339 young people from Zaječar, aged 15 to 30 years of age. The sample was selected in proportion to the population parameter and provides a confidence level of 95% with a margin of error of +/-5. In accordance with the population structure, proportionally, was formed structure of the sample according to the parameters: age, gender, educational status, employment status. The aim of the study was to provide empirical information on the attitudes of young people in Zaječar safety of this city, then about their awareness and readiness to actively participate in

political and social decision-making. In doing so, they cover the following categories of security: 1) General Security - key indicators of security and identification of the main problems that impair the safety of youth; 2) Economic Security (work - unemployment, poverty, employment rights, trade - the quality of goods and services); 3) Social security (health, availability and substance abuse, reproductive health care, respect for human and minority rights, traffic safety, violence, crime, risky behavior, safety on the Internet); 4) Socio-political responsibility - activism and awareness of youth; 5) Security crisis management; 6) Taking care of the environment. Youth in Niš and Zaječar, as the core issues of security, noted: unemployment, poverty, crime, lack of information and inequality - disrespect for minority rights. Results detailed light on the relationship between psychological and realistic indicators of security in this city and can be interpreted in a broader domain of attitudes and values of young people on this cultural area.

Keywords: security assessment, safety, youth

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## Religijski identitet mladih u Republici Srpskoj

Nakon raspada bivše Jugoslavije, brojne društvene promjene je pratio i rast religioznosti. Brojna istraživanja ukazuju na to, ali i na činjenicu da su ti rezultati često određeni i novonastalom društvenom poželjnošću religije kao ideologije. U ovom istraživanju pokušali smo detaljnije i obuhvatnije da ispitamo odnos mladih ka religijskom identitetu (RI). Ovaj cilj smo konkretizovali kroz tri istraživačka zadatka: 1. Kako mladi doživljavaju RI u svjetlu primordijalističkog odnosno socijalizacijskog pristupa? 2. Koji su dominantni stilovi vjerske zrelosti mladih? 3. Kakva je veza različitih dimenzija religioznosti sa otvorenošću prema drugim religijama?

Istraživanje je sprovedeno na uzorku od 377 mladih (61.3% djevojaka, 38.7% mladića) iz Republike Srpske. Prosječni uzrast je bio 19 godina. Upitnik je sadržavao pitanja o doživljaju, važnosti i nastanku RI. Upotrebljena je skala procjene vjerskih stilova Barnsa i saradnika koja mjeri vjerske stilove u kontekstu Foularovih faza razvoja

vjere. Sa svrhom senzibilnijeg mjerenja religioznosti primjenjena je i multidimenzionalna skala religioznostikoja mjeri dimenzije religijskog altruizma, tradicionalno-institucionalne religioznosti, te religijskog/ih znanja, uvjerenja, aktivnosti i iskustva.

Rezultati o karakteru RI pokazuju: većina mladih je postala rano i tokom djetinjstva svjesna svog RI; najčešći stavovi su da se RI stiče "rođenjem" ili "krštenjem"; za 48,5% RI je jako važan; 80% smatra da su sve religije jednako vrijedne; 62% smatra da ljudi ne moraju da se svrstaju u neku religiju; 72% smatra da ljudi mogu da mijenjaju religijsku pripadnost. Ovi podaci ukazuju na važnost RI za mlade, te isprepletenost socijalizacijskog i primordijalističkog pristupa u doživljaju RI. Klaster analiza vjerskih stilova ispitanika, pokazuje da najviše mladih pripada petom stilu povezujuće vjere (42.2%), potom četvrtom stilu individualno-reflektivne vjere (35%). Drugi, mitsko – literalni stil je dominantan kod 16% mladih, a treći, konvencionalni stil vjere kod 6.8%. Ovi rezultati ukazuju na zreliji nivo vjere od očekivanog. Mozaik o religijskom identitetu upotpunjuje i odnos religijske otvorenosti i religijskih dimenzija. Religijska otvorenost je u niskim negativnim ali značajnim korelacijama sa dimenzijama: religijska aktivnost, religijska uvjerenja, tradicionalno-institucionalna religioznost. Ne postoji značajna veza sa religijskim znanjem, iskustvom i religijskim altruizmom.

Podaci o RI mladih dobijeni kroz različite vidove mjerenja nisu potpuno koherentni. Karakter RI se različito doživljava, a postoje neusklađeni rezultati između izražene zrelosti vjere i negativne veze religioznosti i religiozne otvorenosti. Potraga za zrelijim vidovima religioznosti te kako ih mjeriti će se očigledno nastaviti i ubudućnosti.

*Ključne reči:* religijski identitet, stilovi vjere, religiozne dimenzije

## Religious identity of youth in Republic of Srpska

After the breakup of ex Yugoslavia, numerous social changes took place, and they were followed by growth of religiousness. Many studies point to that fact, but it is noticeable that these results are often determined by newly created social desirability of a religion as an ideology. In this research, we tried to examine relations that youth had towards religious identity (RI) in more detailed and precise way. This goal was accomplished through three research tasks: 1. in what way do young people experience religious identity in light of primordial or socialization approach? 2. What are the young people dominant styles of faith maturity? 3. What

are the relations between different dimensions of religiousness and openness towards other religions?

We conducted a research, on the sample of 377 of young people (61.3% of girls and 38.7% of young men) from Republic of Srpska. As far as age is concerned, on average, they were 19 years old. The questionnaire contained questions about character, importance and development of religious identity. We used Barnes's scale assessment of faith styles that is measuring styles in context of Fowler phases of faith development. Bearing in mind the purpose of sensible measuring of religiosity, we also applied multidimensional scale of religiosity that measures dimensions of religious altruism, traditional - institutional religiosity and religious knowledge, beliefs, activities and experience.

RI character results show that most young people became aware of their RI during their childhood; most common attitudes are that RI is gained by birth and through baptizing; for 48.5%, RI is really important; 80% considers that all religions are of an equal value; 62% thinks that people don't have to be part of some religion; 72% thinks that people can change their religious affiliation. Youths cluster analysis of faith styles showed that most of them belong to the 5th style of connecting faith (42.2%), and then to the 4th style of individually-reflective faith (35%). 2nd, mythical-literal style is dominant at 16% of youth, and the 3rd, conventional style of faith is dominant at 6, 8% of them. Mosaic about religious identity is completed with the relations between religion openness and religion dimensions. Religion openness has some small, negative, but significant correlation with dimensions: the religious activities, religious beliefs, and traditional-institutional religiosity.

Data about youths RI that we gained through different kind of measurement scales are not completely coherent. The RI characters are differently experienced; there are some uncoordinated data between expressed religious maturity and negative correlation between religiosity and religious openness. The search for more mature forms of religiosity and how to measure them will obviously continue in the future.

**Keywords:** religious identity, faith styles, religious dimensions

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## Socijalna facilitacija u teretani

Prisustvo drugih olakšava dobro uvežbani ili dominantni odgovor, ali otežava slabije uvežbani ili novi odgovor. Njegovo objašnjenje se zasniva na tome da prisustvo drugih povećava fiziološku pobuđenost (telo ima veći energetski naboj), a kada je prisutna takva pobuđenost lakše je raditi nešto jednostavno, ali je teže raditi nešto složeno ili učiti nešto novo. Osnovni cilj našeg istraživanja je bio da ispitamo ovaj fenomen u sportskoj aktivnosti (teretani), tj, da utvrdimo da li prisustvo drugih ljudi utiče na postignuće ispitanika u situacijama izvođenja lakih i teških vežbi. Takođe, proveravali smo povezanost dužine treniranja, opšteg fizičkog self koncepta i uspešnosti u izvođenju lakih i teških zadatak u obe situacije. Shodno teoriji Zajonca, pretpostavili smo da će u relativno jednostavnim i dobro uvežbanim zadacima (trbušnjaci) prisustvo drugih poboljšati učinak i da će učinak biti slabiji u prisustvu drugih kada je zadatak teži (vežba V-podizanja - sklopke). Pod prisustvom drugih podrazumevao se rad na zadatku pred publikom koja ne radi ništa osim što posmatra. Uzorak je bio dobrovoljački i činilo ga je 32 ispitanika muškog pola, prosečne starosti 23.61 godinu, koji redovno vežbaju u teretani. Korišćen je potpuno ponovljen nacrt tipa 2x2. Subjekti su bili podeljeni u 4 grupe, u svakoj grupi je bilo po 8 učesnika. Korišćena je tehnika intersubjektivnog kontrabalansiranja. T-testom uparenih utvrđeno je da postoji statistički značajna razlika u izvođenju trbušnjaka u situaciji bez prisustva drugih ( $M = 68.32$ ;  $SD = 20.629$ ) i sa prisustvom drugih ( $M = 83.19$ ;  $SD = 27.132$ ),  $t(30) = -4.82$ ,  $p < .01$ , tj. lak zadatak se značajno uspešnije izvodi u prisustvu publike. Kada je u pitanju težak zadatak, nije dobijena statistički značajna razlika između situacije sa prisustvom ( $M = 13.55$ ,  $SD = 8.67$ ) i bez prisustva ( $M = 14.19$ ,  $SD = 6.35$ ) drugih. Međutim, uspešnije izvođenje teških vežbi u situaciji bez prisustva publike povezano je sa dužinom treniranja ( $r = .464$ ,  $p < .01$ ) i opštim fizičkim self-konceptom ( $r = .356$ ,  $p < .05$ ), ali ova veza nije značajna u situaciji sa prisustvom drugih, t.j. postoji moderatorski efekat prisustva drugih na vezu postignuća i navedenih varijabli, u smislu da ispitanici sa dužim stažom u teretani i pozitivnijim self konceptom uspešnije izvode novu i zahtevnu vežbu u situaciji kada nema publike, ali ne i u situaciji kada postoji publika. Naši podaci delimično govore u prilog postojanja socijalne facilitacije u teretani,

iako bi na većem uzorku trebalo proveriti eventualni uticaj prisustva drugih kada se uvežbava nov i težak zadatak.

*Cljučne reči:* socijalna facilitacija, teretana

### Social facilitation in the gym

The presence of others makes a well prepared or dominant response easier, but it makes it difficult to give a less prepared or new response. His explanation is based on the fact that the presence of others increases the physiological arousal (the body has a higher energy charge), and when such arousal occurs, it is easier to do something simple, but it is more difficult to do something complex or to learn something new. The primary goal of our research was to examine this phenomenon in a physical activity (the gym), i.e. to confirm whether the presence of other people affects the subjects' achievements when it comes to doing easier and harder exercises. Likewise, we were also analyzing the connection between the training length, general physical self-concept and the performance in doing easier and harder tasks in both situations. Based on Zajonc's theory, we assumed that the presence of others would improve the performance in cases of relatively simple and well trained exercises (core exercises) and that the performance would be weaker when doing harder exercises in front of others (V-lift exercise). The presence of others meant performing a task in front of an audience which did nothing but sole observing. The audience sample consisted of 32 male volunteers, with an average age of 23.61, all of whom regularly work out at the gym. The subjects were divided into 4 groups, each consisting of 8 participants. Intersubjectcounterbalancing was the technique used in the research. Paired t-test was used to confirm that there is a significant difference in doing core exercises in a situation where others are not present ( $M = 68.32$ ;  $SD = 20.629$ ) and where they are present ( $M = 83.19$ ;  $SD = 27.132$ ),  $t(30) = -4.82$ ,  $p < .01$ , i.e. an easy task is significantly more successfully performed in front of an audience. When it comes to demanding tasks, there was no statistically significant difference between situations with ( $M = 13.55$ ,  $SD = 8.67$ ) and without the presence of others. However, performing harder exercises more successfully without an audience is related to training length ( $r = .464$ ,  $p < .01$ ) and general physical self-concept ( $r = .356$ ,  $p < .05$ ), but this connection is not important in situations where an audience is present, i.e. there is a moderation effect of the presence of others on the connection between the performance and aforementioned variables, in the sense that the subjects with longer experience of going to the gym and a more positive



self-concept more successfully perform a new and demanding exercise in a situation without an audience, but not when in a situation where an audience is present. Our data partially support the existence of social facilitation in the gym, although a possible influence of the presence of others should be examined on a larger sample size when a new and more demanding task is being practiced.

*Keywords:* social facilitation, gym

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### Motivacija mladih za političko delovanje

Interesovanje za društvena zbivanja, političko delovanje i socijalne vrednosti nije samo privilegija starijih ljudi, kako neki misle, već značajnu ulogu u tome mogu imati i mladi. Pošto naša zemlja prolazi kroz brze i burne društvene promene i demokratske političke procese, u ovom istraživanju nas je interesovalo kakve motive imaju mladi za bavljenje političkim delovanjem, kao i to kako socio-demografske varijable utiču na politička opredeljenja.

Ispitivanje je sprovedeno na prigodnom uzorku od 112 mladih sa teritorije Beograda, koji su u vreme ispitivanja bili aktivni članovi političkih stranaka (SNS, DS, DSS). Uзраст ispitanika se kretao od 18 od 35 godina, pri čemu su u uzorku bili zastupljeni pripadnici oba pola (67 ispitanika muškog pola i 45 ispitanika ženskog pola). Takođe, uzeli smo u obzir i druge socio-demografske varijable kao što su: nivo obrazovanja (osnovno obrazovanje, srednje obrazovanje, više i visoko obrazovanje, uključujući i studente), zatim ekonomski status porodice i političko opredeljenje.

Ispitivanje je sprovedeno kao neeksperimentalna, eksplorativno-deskriptivna studija, korelacionog tipa. Podaci su prikupljeni putem skale procene motivacije za političko delovanje, koja je ciljano formulisana za potrebe ovog istraživanja (SMPD). Za utvrđivanje značajnih razlika u pogledu kontrolnih socio-demografskih varijabli korišćeni su t-test i analiza varijanse, kao i analiza glavnih komponenti za utvrđivanje strukture ispitivanih motiva. Dobijeno je da su najvažniji faktori koji utiču na motivaciju za političko delovanje kod mladih: faktor društvene moći

(Cronbach's Alpha .796), ideološki faktor (Cronbach's Alpha .747), socijalni faktor (Cronbach's Alpha .783) i faktor društvenog aktivizma (Cronbach's Alpha .594). Takođe se pokazalo da na motivaciju ispitanika za političko delovanje utiču ispitivane socio-demografske varijable, jer postoje značajne razlike u odnosu na pol ( $F = 29.596$ ;  $p = .000$ ), ekonomski status ( $F = 7.021$ ;  $p = .011$ ), nivo obrazovanja ( $F = 8.456$ ;  $p = .005$ ) i političku pripadnost ( $F = 8.108$ ;  $p = .005$ ). Pokazalo se da se ispitanici najviše razlikuju u pogledu motivacije za političko delovanje kada se posmatrajuprema nivou obrazovanja. To ukazuje da posebno treba voditi računa o nivou obrazovanja mladih kada se procenjuju motive za njihovo političko delovanje.

*Ključne reči:* mladi, stavovi, motivacija, političko delovanje

### Motivation of youth for political action

Interest in social events, political action and social values is not only a privilege of the elderly, as some think, but a significant role can have the young. Since our country is undergoing rapid and tumultuous social change and democratic political processes, in this study we were interested in what motives young people have for engaging in political activities, as well as how sociodemographic variables influence the political affiliation.

Testing was conducted on a sample of 112 young people in Belgrade who are members of political parties (SNS, DS, DSS), younger than 35 years. Respondents were members of both sexes, which vary by level of education, economic status and political orientation.

The study was conducted on a sample of 112 young people from Belgrade, who at the time of testing were active members of political parties (SNS, DS, DSS). Age of the subjects ranged from 18 to 35 years, and they were represented by members of both sexes (67 male and 45 female subjects). In addition, we took into account other socio-demographic variables such as level of education (primary education, secondary education and higher education, including students), followed by the economic status of the family and political affiliation.

The study was conducted as a non-experimental, exploratory-descriptive study, the correlation type. Data were collected through a rating scale of motivation for political action, which is formulated specifically for this research (SMPD). To determine significant differences in terms of control of socio-demographic variables we used t-test and analysis of variance and principal components analysis for determining the structure of the tested subjects. Provided that the most

important factors influencing the motivation for political action among young people are: a factor of social power (Cronbach's Alpha 0.796), the ideological factor (Cronbach's Alpha 0.747), social factors (Cronbach's Alpha 0.783), and a factor of social activism (Cronbach's Alpha 0.594). It also demonstrated that the motivation of respondents for political action affecting examined socio-demographic variables, because there are significant differences in relation to gender ( $F = 29,596$ ;  $p = .000$ ), economic status ( $F = 7.021$ ;  $p = .011$ ), education level ( $F = 8.456$ ;  $p = .005$ ), and political affiliation ( $F = 8.108$ ;  $p = .005$ ). It turned out that the subjects mostly differ in terms of motivation for political action when taken by education level. This suggests that special care should be taken about the level of education of young people when evaluating the motives for their political activity.

*Keywords:* youth, attitudes, motivation, political activities



TEHNIKE U PERCEPCIJI

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## Assessing processing of facial groups using psychophysical methods

It is well-established that the processing of individual faces can be affected by the race of the observer. The other-race effect (ORE) refers to situations where perception and memory is better for faces of one's own race compared to other-race faces (Malpass & Kravitz, 1969). Conversely, an other-race search advantage (ORSA) has been reported, where faces from another race can be found more efficiently than own-race faces (Levin, 2000; Sun, Song, Bentin, Yang, & Zhao, 2013). A number of explanations have been proposed for these race-dependent effects, particularly the idea that "expertise" with one's own race is the mediating factor (Tanaka, 2013). The current study is a first attempt to explore other-race effects in the context of groups of faces and was inspired by recent studies of "ensemble" face processing (de Fockert & Wolfenstein, 2009; Haberman & Whitney, 2007, 2009).

In the study reported here, we asked observers to explicitly indicate whether an array of 16 faces contained more Asian or more Caucasian faces. We used the method of constant stimuli to obtain the point of subjective equality (PSE) for each observer. Consistent shifts in the PSE as a function of observer race would indicate an other-race effect. We ran the study both in the United Kingdom (UK) and in Hong Kong (HK) and in each centre had equal numbers of Asian and Caucasian observers ( $N = 40$ ). On each trial, the participants were shown an array of 16 faces and had to indicate whether there were more Asian or more Caucasian faces present in the display. The actual proportion of faces varied in steps of 2 (1 male and 1 female) from 0 Asian/16 Caucasian to 16 Asian/0 Caucasian. Each of the nine display proportions was presented 30 times for a total of 270 trials. Trial order was randomized separately for each participant. We fitted cumulative normal distributions to the data of individual participants and estimated the PSE. The PSE estimates were analysed using a 2 (Location: HK, UK)  $\times$  2 (Participant Race: Asian, Caucasian) ANOVA. For the sake of consistency data will be presented and discussed, arbitrarily, as a function of the number of Asian faces.

The only significant finding was a main effect of Participant Race. For Caucasian participants, the average PSE was very close to veridical ( $M = 7.9$ ,  $SEM = 0.21$ ). Note

that the veridical point of equality was a display containing 8 Asian and 8 Caucasian faces. For the Asian participants, the PSE estimate was shifted significantly away from veridical ( $M = 9.0$ ,  $SEM = 0.21$ ). This means that Asian participants appeared to give more weight to Caucasian faces, requiring more Asian faces to be present in the display to perceive equality. Overall, our findings indicate that observers can estimate the racial composition of groups of faces, but that these estimates may be biased by the race of the observer.

*Keywords:* face perception, other-race effect, other-race search advantage, ensemble processing, point of subjective equality

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## Eye movements in the scene assessment

Visual perception and visual cognition start with the visual system's action known as eye movements. A complex network of brain areas controls voluntary and reflex eye movements (Anderson et al., 2012). Pattern of eye movement provides a dynamic trace of the direction of observer's attention in relation to the visual scene and the current task. However, the goal of eye movements is not only to direct eyes toward the desired location or a target (Corbetta, 1998). Without eye movements insuring stimulation constantly reaching different places on retina, constantly stimulating different set of receptors, vision would be impossible (as experiments with stabilized retinal images clearly demonstrate; Heckenmueller, 1965). Reflex eye movements also insure stable percept during the motion of a target or the observer. Once thought of as a representative of emotional state today they are more often taken as a sign of active attention and cognitive processing. Vision scientists were predominantly interested in the voluntary movement, showing us where the observer's overt attention is (Posner, 1980).

Psychological research greatly benefited from eye movement research, that not only provided insights into visual perception but other cognitive function such as reading, reasoning, problem solving even imagery. In the case of visual perception it added often-overlooked temporal dimension. Lately an additional cue was added

to the eye tracking method: pupil diameter (Binda, Pereverzeva, & Murray, 2014). However this is not a new method (Porterfield, 1737) but has been significantly developed in last three decades as well as made available to the number of scientists (Duchowski, 2003) resulting in the numerous findings and increased understanding of underlying anatomy and physiology.

In our work we used eye movements to establish the scene area that system prefers to sample information from and to establish the processing level. Natural scenes often contain shadows. Low-level vision theories describe shadow regions as the places of low contrast and therefore uninformative. In lightness perception, we describe shadows as informative parts of the scene that provide evidence about 3D layout of the scene, relief of the object, etc. In our experiments we showed how the presence of the cast shadows has a very different effect on eye movements depending on the task. Task such as lightness judgment evokes different eye moment pattern in comparison to face judgment tasks. This different treatment clearly shows that the system does not simply discard and avoids dark areas of the scene. Also it teach is us the reach of eye movement method which will be discussed on this experimental example.

*Keywords:* eye movements, shadows, illumination, lightness perception, scene perception

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## Phenomenology and interobservation

Phenomenology is a tradition of psychological research that has found its moment of maximum development with Gestalt psychology. Phenomenological psychology is the use of the phenomenological method to gain insights regarding topics related to psychology. Phenomenology “is the name of an attitude of spiritual seeing in which one can see or experience something which otherwise remains hidden” (Scheler, 1973). Phenomenology is experimental and its experiments are conducted according to a carefully worked out set of controls and methods.

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Experimental phenomenology (Katz, 1935; Michotte, 1954; Metzger, 1935; Bozzi, 1989; Sinico, 2003) considers observables as explanandum, i.e., the data under observation are definable in terms of the direct and immediate experience. In Experimental phenomenology, the contents of the immediate experience are completely defined in the states of things under observation. The perceptual laws are observable dependencies between two or more phenomenal variables (Sinico, 2013). The key to the use of phenomenological observation in experimental research is intersubjectivity (Husserl, 1931/1967), i.e., an agreement among individuals about the nature of their experience. Thus, the main method adopted by phenomenology is inter-observation: the object under observation is described by several observers who seek to arrive at a shared description of a specific perceptual feature of the object.

Inter-observation as a method consists in “looking together” and “discussing”, mutually exchanging views: “When we find something, we instinctively feel the need for inter-observation (...) because looking together with people who know enough and are used to observing and discussing with them enables us at the same time to observe the fact in a richer and more reliable way, and to view the problem from several different perspectives” (Bozzi, 1978).

In our talk, we will discuss this method by showing how it can be productively applied to the study of perceptual phenomena and how psychophysics can be successively used to quantify them. We will show how phenomenology and inter-observation played a fundamental role in the process of discovering the “Slalom effect” (Césaro & Agostini, 1998), which was observed for the first time while inter-observing the behavior of a straight, horizontal, trajectory of a moving dot intersecting a solid, static, tilted line. When the dot approached the line, all the observers reported that its trajectory was perceptually modified. By introducing more tilted lines the perceived trajectory of the dot became sinusoidal. This method appears to be the logical consequence of the analysis of the problem of the scientific validity of “observed facts” as “objective phenomena”. According to Bozzi (1985) the properties of the stimuli are the result of some measures and/or operations that observers perform on the phenomenological facts under observation: the facts themselves are no more phenomenological than physical, they are simply facts that allow themselves to be observed, where we see the place where to take the measurements.

**Keywords:** phenomenology, phenomenological method, interobservation, slalom effect



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## Neuronski model sidrenja svjetlina

Proces kojim se skala relativnih omjera intenziteta svjetla transformira u skalu percipiranih nijansi svjetlina naziva se sidrenje svjetlina. Novija psihofizička istraživanja upućuju na pravilo da se površina koja odašilje najveći intenzitet svjetla doživljava kao bijela (Gilchrist i sur., 1999). Ilustracija ovog pravila je stepenasti Gelbov efekt kod kojeg dodavanje nove površine sa većim intenzitetom svjetla od prethodnih dovodi do promjene u percepciji svjetlina. Nova površina se doživljava kao bijela, a druge površine se doživljavaju kao različite nijanse sive boje.

U cilju pružanja mehanicističkog objašnjenja usidrenja, predložena je nova neuronska mreža koja se zasniva na presinaptičkoj inhibiciji uzlaznih inhibitornih aksona i samoekscitatornoj povratnoj vezi. Presinaptička inhibicija ima ulogu kontrolnih vrata koja određuju količinu inhibicije koju pojedina stanica može primiti. Stanica koja prima najveći ulazni signal neće biti nimalo inhibirana jer njena presinaptička inhibicija u potpunosti blokira inhibitorne signale iz drugih ulaznih stanica te će njena aktivnost rasti dok ne dosegne najveću moguću razinu koju možemo poistovjetiti sa percipiranjem bijele boje. S druge strane, stanice koje ne primaju najveći ulazni signal dobivaju određenu količinu inhibicije budući da njihova presinaptička inhibicija nije dovoljno jaka da blokira lateralne inhibitorne utjecaje te će njihova konačna razina aktivnosti biti onoliko manja od najveće moguće koliko je jaka uzlazna lateralna inhibicija. Samoekscitatorna povratna veza je nužna kako bi se objasnila kompresija skale percipiranih nijansi svjetlina. Kompjuterske simulacije pokazuju da model ispravno simulira stepenasti Gelbov efekt i utjecaj veličine ploha i inzulacije na njegovu pojavu. Međutim, model ne može objasniti percepciju luminoznosti, odnosno percepciju objekata koji su izvor svjetlosti i utjecaj artikulacije na percepciju svjetlina.

## Neural model of lightness anchoring

Lightness anchoring is a process of transformation of the scale of relative luminance ratios into an absolute scale of perceived lightness values. Recent

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psychophysical work suggests that lightness anchoring operates via maximum-as-white rule, that is, surface with highest luminance in the scene is anchored to the white and all other surfaces are anchored to different shades of gray depending on their luminance ratio relative to the white surface (Gilchrist et al., 1999). Illustration of this rule is the staircase Gelb effect where addition of a new surface with highest luminance alters the lightness appearance of all surfaces present in the scene. New surface appears as white and pushes all other surfaces to lower values on the scale of lightness values.

Goal of the present work is to provide mechanistic explanation of the lightness anchoring and staircase Gelb effect in particular. To this end, new neural network is developed and numerically tested. Proposed neural network consists of presynaptic inhibition of the feedforward input pathways and recurrent self-excitation. Presynaptic inhibition operates as a gate control which regulates the amount of lateral inhibition that a particular node can receive from other network locations. Consequence of the presynaptic inhibition is that the node which receives maximal input will not receive any lateral inhibition because its presynaptic inhibition will block all inhibitory signals arising from other nodes. Activity of this node will grow to the maximal level due to the self-excitation and this physiological maximum can be interpreted as a perception of white. On the other hand, nodes that receive less than maximal input will not be able to completely prevent lateral inhibition and their final activity level will be lower compared to the node with maximal level. Self-excitation is a necessary component of the model because it explains the compression of the scale of perceived lightness values.

Computer simulations showed that the proposed model correctly predicts the appearance of lightness values in staircase Gelb effect. Also, the model can simulate the effect of the surface size and the effect of insulation on lightness anchoring. However, the current version of the model cannot explain perception of luminosity, that is, perception of lightness values for sources of light and the effect of articulation on lightness anchoring.

**Keywords:** anchoring, computer simulations, staircase gelb effect, lightness perception, neural network



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## Efekti iskustva iz porodice porekla na prenatalnu vezanost

Istraživanje predstavljeno ovim radom imalo je za cilj da utvrdi povezanost iskustva odnosa sa roditeljima sa razvojem prenatalne vezanosti kod trudnica. Prenatalna vezanost se opisuje kao psihološka veza koja se razvija u toku trudnoće između majke i fetusa. Njen značaj ogleda se u kvalitetu brige trudnice za fetus, a smatra se da je ona i razvojni prethodnik emocionalne vezanosti između majke i deteta i važan aspekt formiranja roditeljskog identiteta i pripreme za odgovorno i kompetentno roditeljstvo. Razvoj ideja o brizi za drugu osobu razvija se od detinjstva, prvenstveno kroz iskustvo sa sopstvenim roditeljima. Trudnoća je jedinstveni period u životu kada se predstave budućih majki o sebi, drugima i njihovim sopstvenim iskustvima sa roditeljima reaktiviraju i reorganizuju da bi napravili mesta za novu predstavu o detetu, vezu sa detetom i pojam o sebi kao osobi koja pruža brigu. Zato se iskustvo koje osoba ima sa sopstvenim roditeljima smatra jednim od najznačajnijih faktora za kvalitet prenatalne vezanosti. Predmet ovog istraživanja bio je utvrđivanje povezanosti iskustva koje je trudnica imala sa sopstvenim roditeljima sa razvojem prenatalne vezanosti u odnosu na fetus. Uzorkom je obuhvaćena 91 trudnica, a prikupljen je na Klinici za ginekologiju i akušerstvo u Novom Sadu. Za ispitivanje prenatalne vezanosti korišćen je upitnik Prenatal attachment inventory- Maternal foetal attachment scale (PAI-MFAS R1: Hanak, 2006), dok je kao mera iskustva u odnosu sa roditeljima korišćen Father/mother presence questionnaire (FMPQ: Krampe & Newton, 2006). Rezultati ukazuju na to da je podrška i razumevanje koje su ispitanice imale od strane oca u najvećoj meri povezane sa kognitivnom komponentom prenatalne vezanosti ( $r = .232$ ;  $p < .05$ ), dok se sa druge strane uočava da je negiranje emocionalne komponente prenatalne vezanosti u značajnoj meri povezano sa minimalizovanjem podrške od strane sopstvene majke ( $r = .361$ ;  $p < .01$ ). Bihevioralna komponenta koja se odnosi na razvoj ponašanja koja su u funkciji zaštite fetusa izraženija je kod onih trudnica koje imaju pozitivniji odnos prema podršci koju su dobijale od sopstvenih roditelja. Rezultati ovog istraživanja idu u prilog teorijskim pretpostavkama o važnosti efekata odnosa iz porodice porekla na razvoj prenatalne vezanosti.

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*Cljučne reči:* prenatalna vezanost, porodica porekla

## Effects of experience of the family of origin in prenatal attachment

The research presented in this paper was aimed to determine the association of experience with parents with the development of prenatal attachment in pregnant women. Prenatal attachment is described as a psychological bond that develops during pregnancy from mother to fetus. Its importance is reflected in the quality of care of pregnant women for fetus, and it is believed that it is the precursor to the development of emotional attachment between mother and child and is an important aspect of the formation of parental identity and preparation for responsible and competent parenting. The development of the idea of caring for another person develops from childhood, primarily through experience with own parents. Pregnancy is a unique period in life when mental representations of expectant mothers about themselves, others and their own experiences with parents reactivate and reorganize to make room for a new idea of the child, the relationship with the child and the notion of herself as a person who provides care. Therefore, the experience that people have with their own parents considered one of the most important factors for the quality of prenatal attachment. The subject of this research was to determine the relation between the experience that pregnant women had with their own parents with the development of prenatal attachment in relation to the fetus. The sample included 91 pregnant women, and is collected at the Department of Obstetrics and Gynecology in Novi Sad. For prenatal attachment assesment it had been used questionnaire Prenatal attachment inventory- Maternal fetal attachment scale (PAI-MFAS R1: Hanak, 2006), while as measure of an experience of relationship with the parents had been used Father / Mother presence questionnaire (FMPQ: Krampe & Newton, 2006) . Results indicate that the support and understanding that the respondents had of the father associated with the cognitive component of prenatal attachment ( $r = .232, p < .05$ ), while on the other hand observed that the denial of the emotional components of prenatal attachment is related to minimizing the support from their own mothers ( $r = .361, p < .01$ ). The behavioral component that refers to the development of behavior that support the protection of the fetus was more pronounced in those pregnant women who have a more positive attitude towards the support they have received from their own parents. The results of this study support the theoretical assumptions about the importance of effects of the relationship of the family of origin on the development of prenatal attachment.

Keywords: prenatal attachment, family of origin

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## Partnerska afektivna vezanost i zadovoljstvo životom kod osoba sa tjelesnim invaliditetom

Cilj ovog rada jeste utvrditi da li je partnerska afektivna vezanost povezana sa samoprocjenjenim zadovoljstvom životom kod osoba kod kojih je neki stresogeni događaj za posljedicu imao gubitak dijela tijela, kao i da li se na osnovu partnerske afektivne vezanosti može vršiti predikcija zadovoljstva životom. Uzorak čini 180 ispitanika muškog pola koji su tokom ratnih dejstava na području Bosne i Hercegovine i neposredno nakon njih ostali bez nekog dijela tijela, a koji su popunjavali ECR-r upitnik za procjenu partnerske afektivne vezanosti, dva upitnika namijenjena procjeni zadovoljstva životom (WHOQOL-BREF i SWSL), kao i Upitnik Socio-demografskih karakteristika kreiran za namjene ovog istraživanja.

Rezultati distribucije obrazaca u našem uzorku ukazuju na prevalenciju izbjegavajućeg stila afektivne vezanosti (38.9%). Uočava se da su za procjenjeno zadovoljstvo životom ispitanika važne neke od socio-demografskih karakteristika uzorka: postojanje potomstva za psihološki ( $F = 4.83$  i  $p < .05$ ) i socijalni aspekt ( $F = 9.12$  i  $p < .01$ ), kao i aspekt opšteg zadovoljstva životom ( $F = 4.19$  i  $p < .05$ ); zaposlenje ( $F = 8.03-21.43$  i  $p < .05$ ) i materijalni status ( $F = 7.07-16.43$  i  $p < .01$ ) za sve aspekte i simptomi PTSP-a (problem sa spavanjem i razdražljivost za sve, odnosno promjene raspoloženja i noćne more za fizički, psihološki i socijalni aspekt). Takođe, pokazalo se da je partnerska afektivna vezanost zaista dobar prediktor kako opšteg, tako i pojedinačnih aspekata zadovoljstva životom, s tim da je dimenzija izbjegavanja bliskosti u odnosima uvijek bolji prediktor zadovoljstva životom ispitanika ( $F = 13.37-49.50$ ,  $p < .01$ ). Analizom smjera dobijenih korelacija dobijaju se nalazi koji ukazuju na to da su ispitanici kod kojih je izraženija dimenzija izbjegavanja bliskosti ujedno i zadovoljniji životom, čime se otvara pitanje mogućnosti korištenja izbjegavanja kao jednog vida adaptivne strategije u suočavanju sa stresom,

uzimajući u obzir protok vremena i nemogućnost uticaja na prisustvo posljedica traumatskog događaja.

*Ključne reči:* partnerska afektivna vezanost, unutrašnji radni model, zadovoljstvo životom, amputacija

### Adult romantic attachment and life satisfaction among individuals with physical disability

The purpose of this research was to examine if adult romantic attachment is connected with satisfaction of one's life among individuals who had experienced a loss of a body part as a consequence of a war trauma, as well as if this variable is a good predictor of life satisfaction. Participants of this research were 180 men who had lost a part of their bodies, during or soon after war developments in Bosnia and Hercegovina, who filled out ECR-r questionnaire for adult romantic attachment assessment, two questionnaires that measure life satisfaction (WHOQOL-BREF and SWSL), as well as Socio-demographic characteristics Questionnaire, that was created for this research purposes.

The attachment pattern distribution in our sample suggests that the insecure-avoidant attachment is the most common one (38.9%). Our results indicate the importance of different socio-demographic characteristics for one's life satisfaction, like parenthood for psychological ( $F = 4.83, p < .05$ ), social aspect ( $F = 9.12, p < .01$ ), and satisfaction with life in general ( $F = 4.19, p < .05$ ); employment ( $F = 8.03-21.43, p < .05$ ) and financial status ( $F = 7.07-16.43, p < .01$ ) for all aspects and PTSD symptoms (sleep problems and irritability for all, and mood changes and night mares for physical, psychological and social aspect). Also, it seems that adult romantic attachment indeed is a good predictor of satisfaction of one's life in general, as well as in specific areas, taking in consideration that avoidance in relationships is a better predictor ( $F = 13.37-49.50, p < .01$ ). Results also indicate that individuals who are more prone to avoid their significant others are also more satisfied with their lives, which makes us consider using avoidance as some kind of adaptive strategy in coping with stress, taking in consideration time that has passed and also the inability of influencing the trauma consequences, that are very real for them.

*Keywords:* adult romantic attachment, internal working models, life satisfaction, amputation

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## Povezanost uverenja majki o igri sa detetom i senzitivnost u igri

Brojna istraživanja navode da je za optimalan razvoj deteta neophodno iskustvo kvalitetne brige i relacije sa starateljem. Prema teoriji afektivne vezanosti, kontrolni sistem brige staratelja, koji predstavlja sistem ponašanja aktiviran signalima deteta, pored doslednosti i dostupnosti, podrazumeva i senzitivnost. Jedan od razvojno značajnih oblika interakcije za dete jeste igra sa roditeljem. Roditelj sa višim nivoom senzitivnosti je u igri kooperativan, odnosno neguje uverenja da detetu treba obezbediti autonomiju i pružiti sigurnu bazu za istraživanje, te koristi zajedničku igru sa detetom kao aktivnost kojom podržava i podstiče razvoj deteta i kvalitet odnosa sa njim. Cilj ovog istraživanja je ispitati povezanost senzitivnosti majki u igri sa decom i njihovih uverenja o značaju igre za razvoj deteta. Uzorak je činilo 205 majki dece uzrasta od 1 do 5 godina, od kojih polovina ima jedno dete, 40% dvoje, a 5% troje dece. U radnom odnosu je 77% majki, a 74% njih živi u urbanoj sredini, dok četvrtina živi u prigradskim i seoskim naseljima. Najveći procenat majki su članovi potpunih porodica (86%). U igri sa detetom, 84% majki provede do 60 minuta dnevno, dok se mali procenat njih sa detetom igra jednom do tri puta nedeljno. Instrumenti konstruisani za ovo istraživanje uključuju upitnik uverenja roditelja o igri sa detetom, kojim se procenjuju mišljenja majki o funkciji koju ova aktivnost ima za detetov razvoj i njen odnos sa detetom, i Skalu senzitivnosti u igri (Majkić i Mihić, 2014; Drezga, 2015) koja se sastoji iz četiri faktora: Sigurna baza u igri (primer ajtema: Moje dete voli da se igra blizu mene, čak i ako se ja ne igram sa njim), Odbacivanje (Kada ga motivišem da promeni aktivnost u igri, ono se lako i brzo uznemiri), Zanemarivanje (Prihvatam detetov poziv na igru, ali misli mi odlutaju na drugu stranu ili krajičkom oka gledam TV) i Interferencija (Ako mislim da je neka igra zanimljiva ili korisna, insistiram na njoj sve dok je dete ne prihvati). Rezultati saopštavaju da uverenja majke koja ukazuju na razumevanje igre kao istraživačke aktivnosti usmerene na razvoj i kvalitetan kontakt sa detetom značajno korelira sa Sigurnom bazom u igri ( $r = .289, p < .001$ ), dok ostali faktori senzitivnosti ne ostvaruju značajnu korelaciju sa uverenjima ( $r$  odbacivanje =  $.090, p > .05$ ;  $r$  zanemarivanje =  $-.021, p > .05$ ;  $r$  interferencija =  $-.067, p > .05$ ). Majke koje u igri sa



detetom imaju razvijen odnos podrške istraživanju i razvoju i provode najviše vremena u igri ( $r$  sigurna baza i vreme = .244,  $p < .01$ ). Ovi nalazi mogu poslužiti kao osnova za kreiranje programa za jačanje senzitivnosti majki u igri sa decom, budući da su uverenja podložna promeni, a igra pogodna aktivnost za jačanje osetljivosti roditelja na razvojne potrebe dece.

*Ključne reči:* senzitivnost u igri, uverenja o igri, sigurna baza, vreme provedeno u igri

### Relations between mother's play beliefs and sensitivity in play

Numerous researches have shown that for the optimal growth and development of a child, experiences of quality care and relationships with caregivers are necessary. According to the attachment theory, the control system of a caregiver, which represents a system of behaviors activated by a child's signals, apart from consistency and availability, includes sensitivity. One of developmentally significant interactions between a child and a parent is play. A parent higher in sensitivity is cooperative during play, that is, fosters beliefs that child should be provided autonomy and save heaven for research, and so uses the joint play with his child as an activity which supports and encourages child's development and quality relations with him. The aim of this research is to assess correlations between mothers' sensitivity in play and their beliefs on importance of play for child's development. The sample consisted of 205 mothers of children aged 1 to 5. Half of the mothers have only one child, 40% two and 5% three children. Seventy seven percent of mothers are employed, 74% of them live in urban areas, while ¼ lives in suburban and rural areas. The highest percentage of mothers live in complete families (86%). In playing with children, 84% of mothers spend up to 60 minutes per day, while small percentage of them play with their children 1 to 3 times a week. Instruments created for this research include Parent Beliefs on Play With Children Questionnaire, used to assess mothers' beliefs on function of this activity for their children's development and their relationships with children, and Sensitivity in Play Scale (Majkić & Mihić, 2014, Drezga, 2015), which consists of four factors: Save heaven in play (i.e. My child likes to play close to me even when I'm not playing with him), Rejection (When I motivate my child to change activity in play, he or she gets angry easily), Negligence (I accept child's invitation to play, but my thoughts wander or I watch TV out of the corner of my eye) and Interference (If I think some kind of play is interesting or useful, I insist on it until child accepts it). The results have shown that mothers' beliefs that indicate their understanding of play as a research activity directed to development and quality contact with children,

correlate significantly with Save heaven in play ( $r = .289, p < .001$ ), while other sensitivity factors do not make significant correlations with beliefs ( $r$  rejection =  $.090, p > .05$ ;  $r$  negligence =  $-.021, p > .05$ ;  $r$  interference =  $-.067, p > .05$ ). Mothers who have a relationship full of support for research and development, spend most time playing with their children ( $r$  safe heaven and time =  $.244, p < .01$ ). These finding could be used as a basis for creating programs for strengthening mothers' sensitivity in play, since beliefs are prone to changes and play is a suitable activity for strengthening parents' sensitivity for their children's developmental needs.

**Keywords:** sensitivity in play, play beliefs, save heaven, time spent in play

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### Relacije afektivne vezanosti sa aspektima self koncepta, kod adolescenata i mladih odraslih

Ovim istraživanjem željela se ispitati mogućnost postojanja razlika u povezanosti i dejstvu relacija afektivne vezanosti sa bliskim ljudima na pojedinačnu sliku o sebi, kako generalnu, tako i u okviru posebnih subdomena self koncepta (kompetencijski, porodični, socijalni, fizički, emocionalni, akademski) kod dvije uzrasno različite grupe ispitanika. Takođe, zanimalo nas je kako se nama bliske relacije, odnosno relacije sa majkom, ocem, najboljim prijateljem i partnerom, mijenjaju kroz vrijeme.

Uzorak je sačinjavalo 150 adolescenata uzrasta od 15 do 19 godina i 150 mladih odraslih starosne dobi od 22 do 26 godina, sa područja grada Banja Luke, koji su popunjavali Upitnik za procjenu afektivne vezanosti u bliskim odnosima-UPHAV (Hadžić i Vujaković, 2014), upitnik kreiran za potrebe ovog istraživanja, te Upitnik sa procjenu self koncepta SC-POLIE (Čekrlija, 2003). Dobijeni rezultati ukazuju na to da odnosi sa bliskim ljudima zaista jesu dobri prediktori samopoimanja ispitanika ( $A-F = 14.80-28.22; p < .01$ ; i  $MO-F = 30.28-42.93; p < .01$ ), s tim da je ostvarena negativna korelacija između dimenzija izbjegavanja u odnosima i anksioznosti od gubitka istih i slike ispitanika o sebi u okviru pojedinačnih subdomena self koncepta zaista veća kada su u pitanju porodični i vršnjački odnosi u grupi mlađih, a partnerski odnosi u

grupi starijih ispitanika. Ipak, za generalnu sliku ispitanika o sebi, kod ispitanika u obe grupe, najznačajnija i najveća veza se ostvaruje u odnosu na izbjegavanje prema majci ( $r(A) = -.517$  i  $p < .01$ ;  $r(MO) = -.554$  i  $p < .01$ ). Analizirajući hijerarhijski poredak s obzirom na navedene dimenzije anksioznosti od gubitka bliskosti i izbjegavanja bliskosti, dolazi se do zaključka da se nama bitne relacije, odnosno njihov poredak, ne mijenja naročito kroz vrijeme, osim rasta partnera u hijerarhiji kada je u pitanju sigurnost afektivne vezanosti, sloboda dijeljenja sopstvenih misli, osjećanja i ostvarivanja intimnosti. Ovim istraživanjem smo takođe bili u mogućnosti još jednom ukazati na cjeloživotni značaj ostvarenih bliskih veza na samopoimanje ispitanika, s obzirom da se pokazalo da se sa većim prisustvom karakteristika koje upućuju na sigurnu afektivnu vezanost poboljšava i slika ispitanika o sebi, kako u pojedinačnim domenima procjene, tako i generalno. Takođe, čini se da uprkos prisustvu novih relacija u životu pojedinca i njihovog značaja, roditelji i dalje igraju važnu ulogu u pogledu svih aspekata slike o sebi, što može da ukazuje na značaj primarno ostvarenih relacija, ali i na prisustvo trenda produžene mladosti i karakteristika kulture u kojoj živimo.

*Ključne reči:* afektivna vezanost prema različitim značajnim figurama, self koncept, adolescenti, mladi odrasli

### Relations between attachment and different aspects of self concept among adolescents and young adults

The purpose of this research is to examine the possibility of differences existing in connection and influence between attachment towards significant others and different aspects of self concept (competence, family, social, physical, emotional, academic and general) within two different age groups. Also, we are interested in finding out if attachment towards our close ones (mother, father, best friend, partner) changes through time.

Participants of this research were 150 adolescents, aged 15-19, and 150 young adults, aged 22-26, from Banja Luka, who filled out UPHAV questionnaire (Hadžić & Vujaković, 2014), that was created for purposes of this research and SC-POLIE (Čekrlija, 2003), self-concept questionnaire. Our results indicate that relations with our significant others are indeed good predictors of the way one sees himself ( $A-F = 14.80-28.22$ ;  $p < .01$ ;  $i MO-F = 30.28-42.93$ ;  $p < .01$ ), taking in consideration that the negative correlations between avoidance and anxiety in these relations and one's self concept in specific areas have stronger connection with relations towards

parents and peers in younger group, and with the partner in older group. However, for the self concept in general, the most powerful and the strongest connection, within both groups, is found within avoidance towards mother ( $r(A) = -.517$  i  $p < .01$ ;  $r(MO) = -.554$  i  $p < .01$ ). By analyzing the hierarchical order, considering the attachment dimensions, we came to conclusion that the attachment towards our close ones, their hierarchical order to be exact, doesn't change through time in particular, except the fact that the relationship with partner becomes more secure and moves up in terms of relevancy, freedom to share own thoughts and feelings and intimacy. Once again, by doing this research, we succeeded in emphasizing the across life importance of relationships with our close ones for every day functioning, considering that with the obvious existence of secure attachment characteristics participants had better opinion of themselves, in general, and in specific areas of everyday life. Also, it seems that, in spite of new relations present in one's life, parents still seem to be play an important role in all aspects of self concept, which may illustrate the importance of those primary made relations, but also the existence of an extend youth trend and some interesting characteristics of our culture.

**Keywords:** attachment towards significant others, self concept, adolescents, young adults

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## Stres roditeljstva, koroditeljski savez i briga o detetu sa smetnjama u razvoju

U porodicama dece sa smetnjama u razvoju senzitivnost i kvalitet brige o detetu neretko su niži nego u porodicama dece tipičnog razvoja, što za posledicu ima i češće javljanje nesigurnog obrasca afektivne vezanosti. Jedan od faktora koji tome doprinosi je stres roditeljstva, koji se u istraživanjima pokazao značajno višim kod roditelja dece sa smetnjama u razvoju nego kod roditelja dece tipičnog razvoja. Iako su u porodicama dece sa smetnjama u razvoju brojni izvori stresa roditeljstva

(ozbiljnost i neizvesnost zdravstvenog stanja, učestale medicinske intervencije, finansijski izdaci...) i veći zahtevi od uloge roditelja, postavlja se pitanje koji to činioci doprinose kapacitetima roditelja da pruži kvalitetnu brigu? Cilj ovog istraživanja je bio da se ispita efekat stresa roditeljstva na senzitivnost, operacionalizovanu preko socioemocionalne posvećenosti roditelja dece sa smetnjama u razvoju i moderacioni efekat kvaliteta roditeljskog saveza na odnos stresa roditeljstva i socioemocionalne posvećenosti roditelja dece sa smetnjama u razvoju. Uzorak je činilo 150 roditelja dece sa smetnjama u razvoju, ujednačenih po polu. Za procenu stresa roditeljstva korišćene su neke od dimenzija skale PSI (Parenting Stress Index: Abidin, 1990) koje pripadaju domenu roditelja (Socijalizacija, Osujećenje, Kompetencija) i domenu deteta (Podsticanje, Prihvatanje, Zahtevnost), a za procenu socioemocionalne posvećenosti je korišćen Upitnik o socioemocionalnoj posvećenosti (Parental Investment in Child Questionnaire: Bradley, 1997). Kao mera kvaliteta roditeljskog saveza, korišćena je Skala za procenu snage roditeljskog saveza (Parenting Alliance Measure: Abidin & Konolod, 1999). Dobijeni rezultati su ukazali na značajan efekat stresa roditeljstva na socioemocionalnu posvećenost roditelja ( $\beta = -.35$ ;  $p < .01$ ), ali nisu ukazali na značajan moderacioni efekat roditeljskog saveza ( $\beta = -.07$ ;  $p > .05$ ), ali su ukazali na značajan pojedinačni efekat roditeljskog saveza ( $\beta = .12$ ;  $p < .05$ ) na socioemocionalnu posvećenost. Dakle kvalitet roditeljskog saveza se na osnovu ovih rezultata ne može smatrati protektivnim faktorom za efekat stresa roditeljstva na socioemocionalnu posvećenost, ali se može smatrati prediktorom više senzitivnosti i kvaliteta brige, što je u skladu sa nalazima ranijih istraživanja koji sugerišu da je kvalitet roditeljskog saveza usko povezan sa kvalitetom celokupnog porodičnog funkcionisanja, kao i psihofizičkog razvoja deteta. Rezultati su interpretirani u svetlu praktičnih implikacija- kreiranja intervencija i programa za osnaživanje koroditeljskog saveza u cilju povećanja kvaliteta brige o detetu sa smetnjama u razvoju, ali i otvaraju pitanje daljeg istraživanja potencijalnih protektivnih faktora stresa roditeljstva.

*Ključne reči:* roditelji dece sa smetnjama u razvoju, stres roditeljstva, socioemocionalna posvećenost, kvalitet roditeljskog saveza

### Parenting stress, parental alliance and care quality of disabled child

Care quality and parental sensitivity are often lower in families of children with disabilities, than in families of typically developed children, which results in higher incidence of insecure attachment. Parenting stress, also proven to be higher in

families of children with disabilities, could be one of the contributors. Parents of children with disabilities have numerous sources of stress, such as severity and uncertainty of health condition, frequent medical interventions, financial expenses, and the increasing parenting demands, so the question is what are the factors which contribute to optimal care quality? The aim of this study was to examine the effect of parenting stress on sensitivity, operationalized through parental investment, in parents of children with disability, and moderation effect of the parental alliance quality on parenting stress and parental investment, in parents of children with disabilities. The sample consisted of 75 mothers and 75 fathers of children with disabilities. Parenting stress was measured by using some of the dimensions of the PSI scale (Parenting Stress Index: Abidin, 1990) - parent related (Socialization, Frustration, competence), and child related (Encouraging, acceptance, Difficulty) and for the assessment of parental investment in child was used PIC scale (Parental Investment and Child Questionnaire: Bradley, 1997). For measuring parental alliance quality, we used Parenting Alliance Measure (Abidin & Konolod, 1999). The results showed a significant effect of parenting stress on parental investment ( $\beta = -.35$ ;  $p < .01$ ), but did not show any significant moderation effect of parental alliance quality ( $\beta = -.07$ ;  $p > .05$ ). However the results showed the significant individual effect of parental alliance ( $\beta = .12$ ;  $p < .05$ ) on the parental investment. According to the results, parent alliance quality can not be considered as a protective factor for the effect of parenting stress on the parental investment, but can be considered as a predictor of higher levels of parental sensitivity and care quality, which is compatible with earlier findings that suggest that the quality of the parent alliance is closely linked with the quality of the family functioning, and psychological and physical development of the child. The results were interpreted in the light of practical implications- planning interventions and programs to enhance parental alliance quality in order to increase care quality for a child with disabilities, but also raise the question of further investigating of the potential protective factors for parenting stress.

**Keywords:** parents of children with disabilities, parenting stress, parental investment, parental alliance

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## Teorija vezanosti kao okvir za promene u osnovno školskom uzrastu

Rastući korpus znanja o afektivnoj vezanosti i rezultati sve brojnijih istraživanja ukazuju na mogućnost promene rano stečenih obrazaca afektivne vezanosti (Spieker & Booth, 1988). Faktor koji najčešće dovodi do promene je promena dominantne figure afektivne vezanosti. Uzrast na kome se procenjuje promena obično je relativno rani uzrast (do treće godine), ali sve su brojnija i istraživanja koja ukazuju na promene obrazaca vezanosti kod studenata, odnosno u periodu tranzicije sa roditeljskih na partnerske figure vezanosti (Lopez & Gormley, 2002).

Cilj istraživanja je da se utvrdi da li postoji mogućnost promene obrasca afektivne vezanosti u periodu između dva najčešće procenjivana, kao i bez promene dominantne figure afektivne vezanosti. Preciznije: Da li je osnovno školsko obrazovanje (usled činjenice da deca u tom periodu u školi provode značajan deo dana) prilika i za promenu obrasca afektivne vezanosti i kakva je uloga učitelja/ica u ovom procesu?

Istraživanje je započeto sa 42 dece i 42 majke, kao i sa 9 učiteljica. Dijade majka - dete praćene su dve godine, od upisa u prvi do završetka drugog razreda osnovne škole. Prvi put su procenjivane aprila/maja 2013. godine, a drugi put tokom maja/juna 2015. godine. Primenjen je AEED (Autobiographical Emotional Events Dialogues: Koren-Karie & Oppenheim, 2005) intervju. Intervju daje podatak o obrascima vezanosti i majki i dece, kao i o kvlaitetu dijade majka - dete. Tokom dvogodišnjeg perioda došlo je do osipanja uzorka, pa su u konačni istraživački uzorak ušla su samo one dijade majki i dece koje su sarađivale sa učiteljicama tokom obe godine i koje su prihvatile i drugo procenjivanje obrazaca afektivne vezanosti. Nažalost, broj se sveo na 14 dijada i 7 učiteljica. Svih 7 učiteljica pohađalo je seminar o primeni afektivne vezanosti u radu sa decom osnovno školskog uzrasta. Pored navedenog zadat je i upitnik za prikupljanje relevantnih sociodemografskih podataka.

Rezultati su pokazali da postoji statistički značajna promena obrasca afektivne vezanosti u pravcu povećanja broja dece koja su sigurno vezana ( $t = 2.028, p < .005$ ), kao i da su promenama skloniji oni koji pripadaju ambivalentnom obrascu i

devojčice. Nijedno od dece koja su u prvom testiranju imala obrazac izbegavajuće afektivne vezanosti nije promenilo obrazac. Rezultate treba sagledati i u svetlu poželjnosti određenih ponašanja za učiteljice. Do promene u dezorganizovanom obrascu došlo je samo u jednom slučaju i to nakon promene staratelja deteta.

*Ključne reči:* osnovno školski uzrast, afektivna vezanost, promena obrasca afektivne vezanosti

### Attachment theory as a framework for changes at the elementary school age

A growing body of knowledge on attachment as well as results of ever more numerous studies indicate a possibility of changing early acquired attachment patterns (Spieker & Booth, 1988). A factor that most commonly causes the change is a change of a dominant attachment figure. It is usually a relatively young age at which the change is assessed (up to the age of three), but there are more and more studies that point to the change in attachment pattern among students, i.e. in the period of transition from parental to partner attachment figure (Lopez & Gormley, 2002).

The goal of this study is to determine whether there is a possibility of changing an attachment pattern in the period between the two most commonly evaluated, as well as without changing the dominant attachment figure. More precisely: Is the elementary school education (due to the fact that children spend a significant portion of the day at school) an opportunity to change an attachment pattern and what is the role of the teacher in this process?

The research began with 42 children and 42 mothers, as well as with 9 teachers. Mother – child dyads were followed during the period of two years, from enrolment in school until the end of the second school year. The first time they were assessed was April/May 2013, and the second time May/June 2015. AEED (Autobiographical Emotional Events Dialogues: Koren-Karie & Oppenheim, 2005) was used. The interview provides data both on attachment patterns of mothers and children and on the quality of the mother – child dyad. During the two years period, the sample attrited, so the final survey sample was made up only of those mother – child dyads who cooperated with teachers during these two years and accepted the second assessment of attachment pattern. Unfortunately, the number was reduced to 14 dyads and 7 teachers. All 7 teachers attended a seminar on applying attachment theory in their work with children at the elementary school



age. Beside the mentioned, a questionnaire was also given for collecting relevant socio-demographic data.

The results show that there is a statistically significant change in attachment pattern in the direction of increase in number of securely attached children ( $t = 2.028$ ,  $p < .005$ ), as well as that ambivalently attached children and girls are more prone to changes. None of the avoidantly attached children from the first assessment changed the pattern. The results should be regarded in the light of desirability of certain behaviors for the teacher. There was only one change in the disorganized attachment pattern, which occurred after the change of a guardian of the child.

*Keywords:* elementary school age, attachment, change in attachment pattern



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## "VP+2-senior": verzija upitnika Velikih pet plus dva za primenu u populaciji starih osoba

Važnost procene ličnosti starih osoba kako u psihološkoj praksi, tako i u istraživanjima, ukazala je na potrebu za adaptacijom upitnika Velikih pet plus dva za primenu na populaciji starih. Osnovni cilj ovog rada jeste provera psihometrijskih svojstava verzije upitnika VP+2 namenjene primeni na ovoj populaciji. Ova forma upitnika obuhvata 49 stavki, grupisanih u sedam skala. Imajući u vidu specifičnosti populacije starih, format odgovora izmenjen je u odnosu na standardnu verziju, te stavke imaju trostepeni Likertov format odgovora. Uzorak je činilo 109 ispitanika (74 ženskog pola), korisnika usluga Gerontološkog centra u Novom Sadu, starosti od 59 do 93 godine (AS = 74 godine, SD = 8.84). U cilju konvergentne validacije, primenjene su Roterova skala Eksternalnosti i Upitnik za procenu samohendikepiranja, koji obuhvata četiri skale za procenu samohendikepiranja internalnim i eksternim uzrocima u situacijama potignuća i interpersonalnim situacijama. Eksplorativna faktorska analiza (metod glavnih osa) u prostoru stavki VP+2. sugerisala je da je optimalno rešenje sedmofaktorsko, pri čemu sadržaj faktora odgovara dimenzijama VP+2, dok je pouzdanost faktora zadovoljavajuća (Neuroticizam  $\alpha = .88$ ; Pozitivna valenca  $\alpha = .78$ , Agresivnost  $\alpha = .73$  Ekstraverzija  $\alpha = .72$ , Otvorenost ka iskustvu  $\alpha = .72$ , Savesnost  $\alpha = .66$ , Negativna valenca  $\alpha = .63$ ). Ispitanici muškog pola postižu više skorove na dimenziji Agresivnost ( $t(104) = 2.56$ ;  $p < .05$ ) dok ispitanice postižu više skorove na dimenziji Negativna valenca ( $t(94.49) = -2.17$ ;  $p < .05$ ). U cilju konvergentne validacije upitnika, sprovedene su tri višestruke regresione analize, u kojima su prediktorski skup u analizama činile su osobine ličnosti modela VP+2. Rezultati sugerišu da značajan doprinos predikciji stila atribuiranja ima Neuroticizam ( $\beta = .374$ ;  $p < .001$ ). Predikciji unutrašnjih uzroka neuspeha u situacijama postignuća dobrinose Neuroticizam ( $\beta = .285$ ;  $p < .01$ ) i Savesnost ( $\beta = -.274$ ;  $p < .01$ ), dok predikciji spoljašnjih uzroka neuspeha u situaciji postignuća doprinose Agresivnost ( $\beta = .215$ ;  $p < .05$ ), Neuroticizam ( $\beta = .308$ ;  $p < .01$ ) i Savesnost ( $\beta = -.277$ ;  $p < .01$ ). Rezultati ukazuju na replikabilnost dimenzija operacionalizovanih upitnikom VP+2 na uzorku starih osoba kao i na adekvatne

mere pouzdanosti i validnosti. S druge strane, dimenzije Neuroticizma i Savesnosti posebno su značajne za razumevanje atribuiranja uzroka neuspeha u situacijama postignuća kod starijih osoba. Načelno, rezultati upućuju na primenljivost adaptirane verzija VP+2 u populaciji starih.

*Ključne reči:* Velikih pet plus dva, stare osobe, atribicioni stil, samohendikepiranje, polne razlike

### “BF+2-senior”: The version of Big Five Plus Two questionnaire for appliance in elderly population

The need for adaptation of Big Five+2 questionnaire in elderly population emerged from the important practical and theoretical implications of personality assessment in elderly population. The main aim of this research was to test psychometrical characteristics of Big Five + 2 questionnaire adapted for elderly population. This version of questionnaire consists of 49 items, which are grouped in 7 scales. Having in mind specific features of the elderly population, the response format has been changed into 3 - point Likert scales. The sample consisted of 109 participants (74 females), the users of Gerontology center of Novi Sad services, aged between 59 and 93 ( $AS = 74$  years,  $SD = 8.84$ ). In order to test the convergent validity, the Rotter externality scale and the self-handicapping questionnaire (consisting of four scales, assessing self-handicapping with external and internal causes, in contexts of achievement and interpersonal relations) have been applied. Exploratory factor analysis (principal component analysis) of the BF+2 items yielded a 7-factor solution, congruent with the dimensions of the BF+2 questionnaire, while the reliabilities were satisfactory (Neuroticism  $\alpha = .88$ ; Positive valence  $\alpha = .78$ ; Aggressiveness  $\alpha = .73$ ; Extraversion  $\alpha = .72$ ; Openness to experience  $\alpha = .72$ ; Conscientiousness  $\alpha = .66$ ; Negative valence  $\alpha = .63$ ). The male participants scored higher on Aggressiveness ( $t(104) = 2.56, p < .05$ ), while female participants scored higher on Negative valence ( $t(94.47) = -2.17, p < .05$ ). In order to examine the convergent validity of the questionnaire, 3 multiple regression analysis have been conducted, in which the BF+2 dimensions represented predictor variables. The results imply that Neuroticism ( $\beta = .37, p < .001$ ) has a significant role in the prediction of attribution style. Neuroticism ( $\beta = .29, p < .01$ ) and Conscientiousness ( $\beta = .27, p < .01$ ) are significant predictors of internal causes of failure in achievement context, while external causes of failure in achievement situations are best predicted with Aggressiveness ( $\beta = .22, p < .05$ ) Neuroticism ( $\beta = .31, p < .01$ ) and Conscientiousness ( $\beta = .28, p < .01$ ). The results suggest that the the

BF+2 structure replicates in elderly population, while the indicators of reliability and validity are adequate. On the other hand, the dimensions of Neuroticism and Conscientiousness are particularly important for understanding of attributing causes of failure in the situations of achievement in sample consisting of elderly people. Generally, the results imply that the adapted version of the BF+2 is applicable in elderly population.

*Keywords:* Big Five plus two, elderly population, attributions, self-handicapping, gender differences

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### Malih pet plus dva – verzije VP+2 za učenike osnovnih i srednjih škola

Pored standardne verzije upitnika VP+2, namenjene proceni ličnosti odraslih, konstruisane su i verzije namenjene primeni na uzorcima učenika osnovnih (11 - 14 godina) i srednjih škola (15 - 17 godina). Dok se verzija za srednjoškolce, izuzev normi, ne razlikuje od verzije za odrasle, verzija za decu sadrži 70 stavki sa trostepenim Likertovim skalama. Cilj ovog istraživanja je provera internih metrijskih karakteristika upitnika VP+2 za decu i srednjoškolce, provera njihove kriterijumske validnosti, kao i ispitivanje kongruencije dimenzija verzije za srednjoškolce i verzije za odrasle. Uzorak je činilo 628 učenika osnovne škole (284 ženskog pola) i 548 učenika srednje škole (307 ženskog pola), kao i 821 odrasli ispitanik (starosti 20 - 68 godina, AS = 35.72; 485 žena). Pouzdanost po modelu interne konzistencije je zadovoljavajuća za obe verzije upitnika - u verziji za decu, vrednosti Kronbahovih alfa koeficijenata kreću se od .63 za skalu Ekstraverzija do .75 za Neuroticizam, a u verziji za srednjoškolce od 0,83 za skalu Otvorenost do 0,91 za Neuroticizam. Provera kongruencije latentnih dimenzija višeg reda iz prostora VP+2 primenjenog na srednjoškolcima i odraslima sprovedena je analizom glavnih komponenti, pri čemu se rešenje sa 7 komponenti pokazalo optimalnim na oba uzorka. Vrednosti Takerovih koeficijenata kongruencije kreću se između 0,92 za otvorenost do 0,98 za ekstraverziju, savesnost i agresivnost. Kriterijumska validnost upitnika proverena je kroz ispitivanje povezanosti skorova na njihovim skalama sa fenomenima koji su vezani za nasilnu interakciju na osnovnoškolskom i

srednjoškolskom uzrastu. Ovi konstrukti mereni su 20-ajtemskim upitnikom PRONA, namenjenim proceni uloga u nasilnoj interakciji. Na osnovnoškolskom uzorku su dobijene značajne povezanosti između sklonosti ka nasilnom ponašanju i Agresivnosti ( $r = .42$ ), Negativne valence ( $r = .46$ ), Neuroticizma ( $r = .10$ ), Pozitivne valence ( $r = .24$ ) i Savesnosti ( $r = -.22$ ), dok su u srednjoškolskom uzorku dobijene značajne povezanosti sa dimenzijama Neuroticizam ( $r = .19$ ), Ekstraverzija ( $r = -.20$ ), Savesnost ( $r = -.15$ ), Agresivnost ( $r = .40$ ), Otvorenost ( $r = -.20$ ) i Negativna valenca ( $r = .56$ ). Dimenzije VP+2 povezane su i sa Izloženošću vršnjačkom nasilju - na osnovnoškolskom uzorku, zabeležene su značajne korelacije sa Ekstraverzijom ( $r = -.26$ ), Negativnom valencom ( $r = .15$ ), Neuroticizmom ( $r = .40$ ) i Pozitivnom valencom ( $r = -.16$ ), dok su na srednjoškolskom uzorku značajne korelacije sa dimenzijama Neuroticizam ( $r = .41$ ), Ekstraverzija ( $r = -.32$ ), Savesnost ( $r = -.12$ ), Otvorenost ( $r = -.13$ ), Pozitivna valenca ( $r = -.23$ ) i Negativna valenca ( $r = .24$ ). Rezultati ukazuju na zadovoljavajuću internu i kriterijumsku validnost obe verzije upitnika, i govore o njihovoj primenljivosti na ispitanicima starijeg osnovnoškolskog i srednjoškolskog uzrasta.

*Ključne reči:* upitnik Velikih pet plus dva, osnovnoškolci, srednjoškolci, žrtva, nasilnik

### Little five plus two: BF+2 versions for primary and high school students

Alongside the standard version of the BF+2 questionnaire, designed for personality assessment in adults, two additional versions were developed for elementary school (age 11 – 14) and high school (age 15-17) samples. While the high school version is virtually identical (except for the norms) to the adult version, the children version contains 70 items with 3-point Likert scales. The goal of this study was to examine the psychometric properties of the BF+2 questionnaire for children and high – school students. The goals include the examination of criterion validity of the two versions of the questionnaire, as well as of the congruence between the high school and adult versions. The sample comprised 628 elementary school students (284 female) and 548 high school students (307 female), as well as 821 adult participants (aged 20 – 68 years,  $M = 35.72$ ; 485 female). Internal consistencies of the scales were satisfactory for both versions of the questionnaire. In the children's version, Cronbach alphas span from .63 for Extraversion to .75 for Neuroticism, whilst in version for high school students they span from .83 for Openness scale to .91 for Neuroticism. Congruence testing of higher- order factors from the high school and adult samples was conducted by

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principal component analysis, whereby the 7 component solution has shown to be optimal across both samples. The values of Tucker's coefficients range between .92 for Openness up to .98 for Extraversion, Conscientiousness and Aggressiveness. Criterion validity was assessed through the examination of the relations between the BF+2 scale scores and the phenomena connected to violent interaction in elementary and high school students. These constructs were measured by the 20-item PRONA questionnaire, a measure of roles in violent interaction. Results from elementary school samples show significant correlations between the tendency towards violent behavior and Aggressiveness ( $r = .42$ ), Negative valence ( $r = .46$ ), Neuroticism ( $r = .10$ ), Positive valence ( $r = .24$ ) and Conscientiousness ( $r = -.22$ ), whilst results obtained from the high school sample show significant correlations with dimensions Neuroticism ( $r = .19$ ), Extraversion ( $r = -.20$ ), Conscientiousness ( $r = -.15$ ), Aggressiveness ( $r = .40$ ), Openness ( $r = -.20$ ) and Negative valence ( $r = .56$ ). Dimensions of VP+2 are also correlated to Exposure to bullying. Results from an elementary school sample show significant correlations with Extraversion ( $r = -.26$ ), Negative valence ( $r = .15$ ), Neuroticism ( $r = .40$ ) and Positive valence ( $r = -.16$ ), whilst the results from high school participants show significant correlations with dimensions of Neuroticism ( $r = .41$ ), Extraversion ( $r = -.32$ ), Conscientiousness ( $r = -.12$ ), Openness ( $r = -.13$ ), Positive valence ( $r = -.23$ ) and Negative Valence ( $r = .24$ ). The results point to satisfactory psychometric properties of the BF+2 questionnaire and suggest their applicability in elementary school and high school populations.

**Keywords:** Big five plus two questionnaire, elementary school students, high school students, victim, bully

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## Relacije osobina ličnosti iz prostora upitnika Velikih pet plus dva i slike tela

Slika o sopstvenom telu predstavlja značajan aspekt ukupnog doživljaja sebe, a pokazuje se i kao važan prediktor različitih ponašanja, kao i nekih psihopatoloških fenomena. Dosadašnja istraživanja sugerisu da se slika o telu formira iz različitih izvora, te da je povezana i sa stabilnim karakteristikama osobe. Ovo istraživanje usmereno je na problem relacija između osobina ličnosti iz prostora upitnika Velikih pet plus dva i slike o telu. U istraživanju je učestvovalo 484 ispitanika (52.1% muškog i 47.9% ženskog pola), uzrasta od 18 do 30 godina (prosečne starosti 21.69 godina). Korišćeni su instrumenti Velikih pet plus dva – skraćena verzija, kojije namenjen proceni dimenzija Neuroticizma, Ekstraverzije, Agresivnosti, Otvorenosti ka iskustvu, Savesnosti, Pozitivne i Negativne valence, i upitnik Slike tela, formiran za potrebe istraživanja iz IPIP-ovog repozitorijuma stavki, sa dimenzijama Zadovoljstvo telom, Doterivanje i Napetost u vezi sa izgledom. Na muškom poduzorku, modeli predikcije Slike tela osobinama ličnosti su značajni (Zadovoljstvo telom ( $R = .442, p < .00$ ), Doterivanje ( $R = .337, p < .00$ ), i Napetost u vezi sa izgledom ( $R = .547, p < .00$ ). Kod muškaraca, Neuroticizam ( $\beta = -.347, p < .00$ ), Otvorenost ( $\beta = -.220, p < .01$ ) i Pozitivna valenca ( $\beta = .214, p < .01$ ) su značajni prediktori Zadovoljstva telom; Pozitivna valenca ( $\beta = .248, p < .01$ ) značajan prediktor Doterivanja; a Agresivnost ( $\beta = -.259, p < .00$ ), Neuroticizam ( $\beta = .221, p < .01$ ), Negativna ( $\beta = .469, p < .00$ ) i Pozitivna valenca ( $\beta = .142, p < .05$ ) značajni su prediktori Napetosti u vezi sa izgledom. Na ženskom poduzorku, modeli predikcije Slike tela osobinama ličnosti su takođe značajni (Zadovoljstvo telom ( $R = .406, p < .00$ ), Doterivanje ( $R = .410, p < .00$ ) i Napetost u vezi sa izgledom ( $R = .427, p < .00$ ). Kod žena, Ekstraverzija ( $\beta = .165, p < .05$ ), Negativna ( $\beta = -.343, p < .00$ ) i Pozitivna valenca ( $\beta = .173, p < .05$ ) su značajni prediktori Zadovoljstva telom; Ekstraverzija ( $\beta = .313, p < .01$ ) i Pozitivna valenca ( $\beta = .262, p < .00$ ) su značajni prediktori Doterivanja; a Ekstraverzija ( $\beta = .188, p < .01$ ), Neuroticizam ( $\beta = .288, p < .00$ ), Negativna valenca ( $\beta = .251, p < .01$ ) i Otvorenost ( $\beta = -.193, p < .01$ ) jesu značajni prediktori Napetosti



vezane za izgled. Rezultati ukazuju na značajnost svih dimenzija ličnosti iz prostora VP+2 u predikciji različitih dimenzija slike tela, ali i na moguće postojanje polnih razlika u konfiguraciji osobina ličnosti koje su u vezi sa različitim komponentama slike tela.

*Ključne reči:* Velikih pet plus dva, slika tela, polne razlike

## Relations between Big five plus two personality dimensions and body image

Body image represents an important aspect of an individual's complete view of self, and has been shown to be an important predictor of different behaviors as well as certain psychopathological phenomena. Previous research suggests that body image is formed from different sources and that it is connected with stable characteristics of an individual. This research aims to investigate relations between the dimensions of the Big five plus two questionnaire and body image. Sample consisted of 484 subjects (52.1% male and 47.9% female), aged 18 to 30 years ( $M = 21.69$ ). The Big five plus two questionnaire – brief form was used for the assessment of the seven personality dimensions: Neuroticism, Extraversion, Aggressiveness, Openness to Experience, Positive and Negative Valence, and the Body image questionnaire, created for the needs of this research using IPIP repository items, for the assessment of three dimensions: Body Satisfaction, Grooming, and Tension about Appearance. On the male sample, prediction models by personality traits for Body image were significant for all three dimensions (Body Satisfaction ( $R = .442, p < .00$ ), Grooming ( $R = .337, p < .00$ ) and Tension about Appearance ( $R = .547, p < .00$ ). Neuroticism ( $\beta = -.347, p < .00$ ), Openness ( $\beta = -.220, p < .01$ ) and Positive Valence ( $\beta = .214, p < .01$ ) significantly predicted Body Satisfaction; Positive valence ( $\beta = .248, p < .01$ ) significantly predicted Grooming, while Aggressiveness ( $\beta = -.259, p < .00$ ), Neuroticism ( $\beta = .221, p < .01$ ), Negative ( $\beta = .469, p < .00$ ) and Positive Valence ( $\beta = .142, p < .05$ ) significantly predicted Tension about Appearance. In the female sample, predictions models were also significant for all three Body Image dimensions (Body Satisfaction ( $R = .406, p < .00$ ), Grooming ( $R = .410, p < .00$ ) and Tension about Appearance ( $R = .427, p < .00$ ). Extraversion ( $\beta = .165, p < .05$ ), Negative ( $\beta = -.343, p < .00$ ) and Positive Valence ( $\beta = .173, p < .05$ ) significantly predicted Body Satisfaction; Extraversion ( $\beta = .313, p < .01$ ) and Positive valence ( $\beta = .262, p < .00$ ) emerged as significant predictors for Grooming, whereas Extraversion ( $\beta = .188, p < .01$ ), Neuroticism ( $\beta = .288, p < .00$ ), Negative Valence ( $\beta = .251, p < .01$ ) and Openness ( $\beta = -.193, p < .01$ ) emerged as significant predictors for

Tension about Appearance. Results point towards an important role of the Big five plus two dimensions in the prediction of different aspects of Body Image, as well as a possibility of gender differences in the configuration of personality traits related to different components of one's body image.

Keywords: Big five plus two, body image, gender differences

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## Velikih pet plus dva: Neistražena svojstva u pet tabela plus dva grafikona

Upitnik Velikih pet plus dva (VP+2) je upitnik za procenu ličnosti proistekao iz leksičkih opisa ličnosti u srpskom jeziku. Upitnik obuhvata sedam dimenzija ličnosti višeg reda: Neuroticizam (zabrinut, nesrećan, ogorčen), Ekstraverziju (srdačan, vedar, druželjubiv), Savesnost (marljiv, uporan, promišljen), Agresivnost (ljutit, osvetoljubiv, borben), Otvorenost (kreativan, svestran, idealista), Pozitivnu valencu (moćan, važan, dobar) i Negativnu valencu (loš, lažljiv, nametljiv). VP+2 ima hijerarhijsku strukturu, sa 18 supskala. Iako rezultati govore o veoma dobrim metrijskim svojstvima upitnika, u dosadašnjim studijama relativno je malo pažnje bilo posvećeno proveru strukturalne validnosti VP+2 konfirmativnim postupcima, njegove metrijske karakteristike proveravane su uglavnom pod klasičnim modelom merenja, a veoma su malobrojna istraživanja koja se bave inkrementalnom validnošću ovog instrumenta. Imajući to u vidu, osnovni ciljevi ovog istraživanja podrazumevaju proveru tih metrijskih svojstava, pri čemu provera inkrementalne validnosti VP+2 podrazumeva njegovo poređenje sa upitnicima BFI, operacionalizacijom leksičkog modela Velikih pet, i EPQ-R, operacionalizacijom Ajzenkovog PEN modela. Strukturalna validnost proverena je konfirmativnim faktorskim analizama, na uzorku od 2924 ispitanika (55.9% žena), starosti 18-68 godina (AS = 30.81). Rezultati ukazuju na zadovoljavajući fit sedmofaktorskog modela ( $\chi^2/df = 12$ ; CFI = 0.98; RMSEA = 0.061; SRMR = 0.033). IRT analize prema modelu stepenovanih odgovora (GRM) ukazale su na zadovoljavajuću

informativnost skala obe verzije upitnika. Inkrementalna validnost integralne verzije upitnika VP+2 u odnosu na upitnik BFI proverena je sprovođenjem dve hijerarhijske regresione analize, u kojima su kriterijumi bili skorovi na skalama Pozitivni afekat (PA) i Negativni afekat (NA) iz prostora upitnika PANAS. Ovaj segment istraživanja sproveden je na uzorku od 421 ispitanika (53.9% žena), starosti 18-65 godina (AS = 30.84). U obe analize, upitnik VP+2 imao je značajan specifični doprinos objašnjenju varijanse u odnosu na BFI (5% za Pozitivni afekat i 12% za Negativni afekat), pri čemu su doprinose predikciji skora na skali PA imali Neuroticizam, Pozitivna valenca i Negativna valenca. Značajan parcijalni doprinos predikciji skora na NA imao je Neuroticizam. Inkrementalna validnost VP+2 u odnosu na EPQ-R ispitana je hijerarhijskom regresionom analizom u kojoj je kriterijum bio ukupni skor na skali agresivnosti BPAQ, na uzorku od 498 ispitanika (54.2% žena), starosti 18-68 godina (AS = 31.43). Upitnik VP+2 imao je i značajan specifični doprinos predikciji agresivnosti u odnosu na EPQ-R (24.6% varijanse), pri čemu su značajne doprinose predikciji imale dimenzije Agresivnost i Neuroticizam. Rezultati ukazuju na veoma dobra psihometrijska svojstva upitnika Velikih pet plus dva i njegov značajan doprinos predikciji širokog spektra psiholoških fenomena.

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*Ključne reči:* Velikih pet plus dva, inkrementalna validnost, strukturna svojstva

### The Big five plus two questionnaire: The unexplored properties in five tables plus two figures

The Big Five Plus Two (BF+2) questionnaire is a personality questionnaire derived from the lexical personality descriptors in Serbian language. The questionnaire has a hierarchical structure, measuring seven higher-order personality dimensions: Neuroticism (worrisome, unhappy, bitter), Extraversion (cordial, cheerful, sociable), Conscientiousness (diligent, persistent, cautious), Aggressiveness (angry, vengeful, combative), Openness (creative, broad-minded, idealistic), Positive valence (powerful, important, good) and Negative valence (bad, liar, intrusive). BF+2 comprises 18 lower-order traits in total. Although the results of a number of studies point to very good psychometric properties of the BF+2, little attention has been paid so far to the evaluation of BF+2's structural validity by confirmatory methods. Furthermore, its psychometric properties have been assessed only under premises of the classic test theory, while its incremental

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validity has rarely been examined. The main aim of this study is to explore the aforementioned properties of the BF+2, whereby its incremental validity is assessed through comparison with a measure of the lexical Big Five model (BFI), and a measure of the PEN model (EPQ-R). Structural validity was examined using confirmatory factor analyses, on a sample of 2924 participants (55.9% females), aged 18-68 years ( $M = 30.81$ ). The results suggest good fit of a seven-factor model ( $\chi^2/df = 12$ ; CFI = 0.98; RMSEA = 0.061; SRMR = 0.033). IRT analyses based on the graded response model point to satisfactory scale information. Incremental validity of the BF+2 compared to the BFI was examined using two dimensions of trait affect (Positive - PA and Negative affect - NA), measured by the PANAS questionnaire, as dependents. This study was conducted on a sample of 421 participants (53.9% female), aged 18-65 years ( $M = 30.84$ ). In both analyses, BF+2 had significant specific contributions atop the BFI (5% variance for Positive affect and 12% for Negative affect), with significant partial contributions of Neuroticism, Positive valence, and Negative valence for PA. Neuroticism contributed significantly to the prediction of NA. Incremental validity of the BF+2 compared to the EPQ-R was examined on a sample of 498 participants (54.2% female), aged 18-68 ( $M = 31.43$ ), using the global score on the BPAQ aggressiveness scale. BF+2 accounted for a significant amount of variance (24.6%) atop the BFI, with Aggressiveness and Neuroticism as significant predictors. The results demonstrate good psychometric properties of the BF+2, and point to its applicability in prediction of a wide spectrum of psychological phenomena.

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**Keywords:** Big Five Plus Two, incremental validity, structural properties

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## VP+2 i sport: osobine ličnosti kao prediktori bavljenja sportom i sportskog uspeha

Pitanje o postojanju specifične strukture ličnosti sportista permanentno zaokuplja pažnju istraživača u oblasti sportske psihologije. Hipoteza da određene osobine ličnosti značajno doprinose bavljenju sportom, kao i sportskom uspehu, podržana je brojnim empirijskim nalazima, premda među njima postoji izvesna nekonzistentnost. Osnovni cilj ovog istraživanja je rasvetljavanje navedene problematike primenom upitnika Velikih pet plus dva (VP+2), koji obuhvata sledeće dimenzije ličnosti: Ekstraverzija, Neuroticizam, Savesnost, Otvorenost, Agresivnost, Pozitivna i Negativna valenca. Na uzorku od 183 ispitanika (55,7% ženskog pola), uzrasta 15-49 godina ( $AS = 21.16$ ,  $SD = 4.42$ ), pri čemu je 81 ispitanik profesionalni sportista, pored 70-ajtemske verzije upitnika Velikih pet plus dva primenjen je i upitnik sa pitanjima iz oblasti sporta (profesionalno bavljenje sportom - definisano binarno, uspeh u sportu - definisan brojem osvojenih medalja na domaćim i međunarodnim takmičenjima, i dužina treniranja - izražena u godinama). Sprovedene su dve odvojene regresione analize, pri čemu je svaka od kriterijskih varijabli bavljenja sportom regresirana na prediktorski set sačinjen od varijabli pol i starost i dimenzija VP+2. Rezultati binarne logističke regresije sugerišu da izraženija Ekstraverzija (količnik šansi = 1.19), niža Otvorenost (količnik šansi = 0.92) i muški pol (količnik šansi = 3.49) ostvaruju značajne samostalne doprinose predikciji profesionalnog bavljenja sportom. Model uspešno klasifikuje 69,4 % slučajeva i objašnjava između 22% ( $R^2$  Koxsa i Snela) i 29% varijanse ( $R^2$  Nagelkerkea) profesionalnog bavljenja sportom ( $\chi^2(9, 183) = 44.98$ ,  $p < .001$ ). U cilju ispitivanja povezanosti predikcije uspeha u sportu i dimenzija VP+2 sprovedena je multipla linearna regresija na poduzorku ispitanika koji aktivno učestvuju u profesionalnim sportskim aktivnostima, a prediktorskom setu pridružena je i varijabla dužina treniranja, radi statističke kontrole njenog eventualnog uticaja na broj osvojenih medalja. Utvrđeno je da uspeh u sportu objašnjavaju individualne razlike u Savesnosti ( $\beta = 0.37$ ,  $p < .05$ ), kao jedinom statistički značajnom samostalnom prediktoru, dok se model u celini, sa 18,5% objašnjene varijanse, nije pokazao

statistički značajnim ( $F(9,71) = 1.59, p = .13$ ). Stoga su izračunate i Pearson-ove korelacije između broja osvojenih medalja i svake od prediktorskih varijabli, koje su potvrdile pozitivnu vezu uspeha u sportu sa Savesnošću, srednje veličine efekta ( $r = .25, p < .05$ ). U načelu, rezultati ukazuju na potencijal upitnika VP+2 za primenu u oblasti psihologije sporta, pri čemu bi u budućim istraživanjima posebno značajno bilo ispitati relacije dimenzija nižeg reda iz prostora VP+2, sportskog uspeha i profesionalnog bavljenja sportom.

*Ključne reči:* upitnik Velikih pet plus dva, sportski uspeh

### BF+2 and sports: Personality traits as predictors of sports engagement and sports success

The issue of the existence of a specific personality structure in athletes constantly occupies the attention of researchers in the field of sports psychology. Numerous empirical findings support the hypothesis that certain personality traits contribute to sports engagement, as well as sports success, although there are certain inconsistencies among these findings. The main objective of the present research is shedding light on this subject matter, using the Big Five Plus Two questionnaire (BF+2), which includes the following personality dimensions: Extraversion, Neuroticism, Conscientiousness, Openness, Aggressiveness, Positive and Negative Valence. A total of 183 participants (55.7% female, 44.26% professional athletes), aged 15-49 years ( $M = 21.16, SD = 4.42$ ), completed the 70-item version of the Big Five Plus Two questionnaire, in addition to a short questionnaire regarding sports (professional sports engagement - binary defined, sports success - defined by the number of medals won in national and international competitions, and the length of training - expressed in years). We conducted two separate regression analyses, in both of which the criterion variables were regressed on the predictor set comprising gender, age and BF+2 dimensions. The results of binary logistic regression suggest that high Extraversion (odds ratio = 1.19), low Openness (odds ratio = 0.92) and male gender (odds ratio = 3.49) achieved significant independent contributions to the prediction of professional sports engagement. The model successfully classifies 69.4% of cases and explains between 22% (Cox and Snell's  $R^2$ ) and 29% of the variance (Nagelkerke's  $R^2$ ), in professional sports engagement ( $\chi^2(9, 183) = 44.98, p < .001$ ). In order to examine the relations between prediction of sports success and BF+2 dimensions, a multiple linear regression was conducted on the subsample of professional athletes. The length of training is included in the predictor set in order to obtain statistical control of its potential impact on the

number of medals won. It was found that sports success is explained by individual differences in Conscientiousness ( $\beta = 0.37, p < .05$ ), which was the only statistically significant independent predictor, while the model as a whole, with 18.5% of the variance explained, did not achieve the level of statistical significance ( $F(9,71) = 1.59, p = .13$ ). Therefore, the Pearson's correlations were calculated between the number of medals won and each of the predictor variables. The positive medium effect size relation ( $r = .25, p < .05$ ) between sports success and Conscientiousness was confirmed. In general, the results indicate the potential of the BF+2 questionnaire in the field of sports psychology. For future research, it is particularly important to examine the relations of lower order BF+2 dimensions, sports success and professional sports engagement.

**Keywords:** Big five plus two questionnaire, sports success



VREDNOSTI, IDEOLOGIJE I POLITIČKI STAVOVI



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## Two forms of radicalization: Militant Extremists Mind Set as a conservative ideology mediated by Ethos of conflict

The goal of this research was an exploration of relations between two forms of radical set of beliefs: Militant Extremists Mind Set (MEMS) and Ethos of conflict (EOC). The hypothesis that was tested in the study was that Ethos of conflict can be a mediator of the relationship between political ideology and militant extremists thinking pattern.

MEMS is operationalized through MEMS24 scale, which measures three factors: Provivence, Vile World and Divine Power. EOC questionnaire contains 48 items that explore 8 societal beliefs: justness of the in-group goals, concerns about the security and threat, positive collective self-image of the in-group, beliefs about the in-group victimization, delegitimization of the opponents, patriotism, beliefs about the importance of in-group unity and the desire for peace. Political ideology was measured with three scales. Conservative attitudes were assessed by two scales of ACT questionnaire: Conservatism and Traditionalism. Liberal ideology was measured by Egalitarianism subscale of the SDO inventory. Instruments that measure political ideology and both forms of radical beliefs were administrated to the participants selected from the community sample in Serbia (N = 541, 72% females).

Results showed that conservative ideology is positively associated with EOC. The opposite relations were detected between Egalitarianism and societal beliefs of EOC. Canonical correlation analysis showed that Conservatism is mostly related to MEMS, however, a liberal ideology could be linked to the belief of unfair and unjust world. Furthermore, EOC turned to be an important predictor of MEMS with positive collective self-view, victimization, delegitimization and threatened security as key predictors. Finally, structural equation modeling showed that EOC mediates the influence of conservative ideology on two of three MEMS factors: conservative ideology has a significant influence on the Ethos of conflict and a direct pathway

towards Proviolence; however, the influence of conservatism on Vile World and Divine Power is mediated by EOC: the pathways from conservatism towards them are not significant, but the influence of EOC is.

The results showed that intergroup conflict can facilitate development of general extremist beliefs through specific attitudes toward one's own group that include both positive self-image and Victimization of the in-group and the delegitimization of the out-group. This pattern of beliefs is already detected by previous research: it is characteristic for societies that were involved in violent conflicts. Results of the present study are implicative for policy-making: in post-conflict societies practitioners should pay additional attention to the factors common to group conflict and militant extremism. In that sense the findings of the study can represent powerful source for conflict prevention and deradicalization.

**Keywords:** Militant Extremists Mind Set, Ethos of conflict, conservatism, radicalization

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## Authoritarianism and work ethics in Serbia

According to the classical study on the authoritarian personality, strict work ethics is a part of conventionalism and more general authoritarian orientation. The association between authoritarianism and work ethics has been confirmed in a number of subsequent studies. Most of the findings, however, come from West European and Anglo-Saxon countries who share recent political history of capitalist economic system, and, to a large extent, cultural history influenced by Protestantism. However, it is not known whether and to what extent has the experience with the socialist system left and imprint on the relationship between work ethics and authoritarianism in East European countries.

The lack of such association could be hypothesized because of two main reasons: different religious traditions, and the experience with the socialist system,

including the planned economy. However, an important part of the official socialist ideology was also the cult of hard work, and research findings point at the existence of the association between socialist conservatism and authoritarianism. Therefore, it could be argued that socialist work ethics may be seen as a counterpart to the protestant work ethics, and therefore that in former socialist countries the aforementioned association between work ethics and authoritarianism exists.

This paper examines the relationships between authoritarianism and the ideology of work ethics in Serbia. The analysis is based on a public opinion survey of a random sample of adult Belgrade residents ( $N = 502$ ). Work ethics is operationalized via an 4-item Likert-type scale, while the authoritarianism scale consisted of 10 items. Results indicate that authoritarianism significantly correlates with work ethics ( $r = .41, p < .01$ ). Additional analyses show that this association is likely a consequence of political history: although work ethics is not associated with left-right ideological self-identification, it is significantly associated with self-identification with the ideological label 'socialist'.

The paper demonstrates that, regardless of differences in political and cultural traditions, psychological underpinnings of the strict work ethics in Serbia are similar to those observed elsewhere.

**Keywords:** authoritarianism, protestant work ethics, ideology, socialism, Serbia.

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## Cognitive resources and electoral participation

Electoral abstention is a problem that characterizes many contemporary democracies. Serbia is not an exemption to this trend - approximately one third of Serbian electorate does not participate in national elections. In this paper we analyze the factors that influence individual differences in electoral participation. In particular, we examine the implications of the resource theory for understanding electoral abstention in Serbia. According to the resource theory,

what differentiates those that do take part in elections from those who abstain is in the resources available to them. Those who have more economic, social and other resources at their disposal are more frequently found among electoral participants. The lack of resources increases the chance of electoral abstention. Sociological research particularly emphasizes the role of socio-economic resources such as the economic status, education, material welfare. However, the notion of resources includes also psychological factors. The focus in this paper is on cognitive resources - the influence of political information onto electoral participation. We examine the hypothesis that cognitive resources increase the probability of turnout, even after statistically controlling for the effects of the basic socio-economic variables.

The data from the 2012 Serbian election study are used. The Serbian election study is a post-election public opinion survey conducted after the 2012 presidential and parliamentary elections. It is based on a probability sample of 1568 voting age citizens of Serbia. The results demonstrate that political sophistication, measured by four political knowledge questions, affects electoral turnout in accordance with the initial hypothesis. According to the results of multivariate logistic regression, electoral abstainers are characterized by relatively lower level of political information (the coefficient is  $-20$ ,  $z = 3.02$ ,  $p < .005$ ;  $N = 1505$ ). Further analyses revealed that political 'coloring' of certain indicators of political information influences the relationship between political information and turnout. Namely, those underestimating the unemployment rate are relatively more likely to vote compared to those who are better informed concerning this particular question. The paper concludes that the resource theory, expanded to include cognitive factors, is a useful framework for more comprehensive understanding of political participation in Serbia.

**Keywords:** elections, participation, turnout, political information, cognitive resources, Serbia.

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## The (true) relation between national identity and social dominance orientation

The goal of this research is to enquire into meditational influence of the authoritarianism on the relation between national identity and social dominance orientation. It is assumed that people who express their national identity more, are more oriented towards social dominance, regardless of the degree of the expression of authoritarianism.

The sample included 247 students from the territory of the Republic of Serbia, which consisted of 60.7% female and 32% male respondents which completed the Authoritarianism scale (UPA-S), National Identity scale and the Orientation towards Social Domination scale (SDO). Cronbach's alpha values for UPA-S is .916, for National Identity scale is .848 and for SDO is .779.

Meditational analyses were conducted in SPSS using the PROCESS add-on, with the bootstrap sampling method. Results showed that the indirect effect of prominent national identity on social dominance through authoritarianism was .310 (95% CI .194,.441). In-depth analyses revealed that the indirect effect was approximately 1.22 times higher than the total effect. Conducted analyses demonstrated a total mediation effect, as all of the criteria for total mediation were satisfied, and supported by one of the indirect effects test; namely, the Sobel test ( $z = 5.32$ ,  $p < .01$ ).

The results of this research show that people with more expressed national identity will prefer hierarchical social structure, or that they will be more prone to the social dominance orientation if they are more authoritarian. This finding could give better insight into mechanisms and dynamics of the perception of individual of one nation in reference to others.

**Keywords:** authoritarianism, national identity, social dominance orientation, meditational analyses

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## Personalne vrijednosti i politička aktivnost mladih u FBiH i Sloveniji

Rezultati više studija pokazali su da u Zapadnoj Evropi postoji povezanost između Schwartzovog modela personalnih vrijednosti, društvenih stavova, političkih preferencija i ideologije. Pored toga otkrivene su i razlike u vrijednostima između glasača i neglasača. Cilj rada bio je ispitati razlike u personalnim vrijednostima ispitanika iz Slovenije i BiH, te ispitati razlike između glasača i neglasača. Uzorkom je obuhvaćeno 907 ispitanika – 457 iz Slovenije i 450 iz BiH. Starost ispitanika kretala se u rasponu od 20 do 33 godine ( $M = 24.29$ ;  $\sigma = 1.47$ ). Instrumentarij je činila Schwartzova skala vrijednosti PVQ-40, te ček lista političkog aktivizma. Pouzdanost skala vrijednosti kretala se od .62 do .79 (BiH), odnosno u od .60 do .83 (Slovenija), što je relativno prihvatljivo zbog malog broja stavki na pojedinim skalama. Inventar PVQ ima zadovoljavajuću faktorsku valjanost:  $RMSEA = 0.053$ . Sve analize izvršene su na dimenzijama prvog reda, jer su testirane solucije drugoga reda imale lošu faktorsku valjanost. Na nivou vrijedonosnih tipova prvog reda utvrđene su statistički značajne razlike kod pet motivacionih vrijednosti. Ispitanici iz BiH statistički značajno se razlikuju od ispitanika iz Slovenije na vrijednostima iz grupe Zadržavanje tradicionalnih odnosa: Sigurnost:  $t(905) = 6.35$ ,  $p < .001$ ; Konformizam:  $t(905) = 10.78$ ,  $p < .001$ ; Tradicija:  $t(905) = 19.06$ ,  $p < .001$ , dok se slovenski ispitanici razlikuju na vrijednostima: Hedonizam  $t(905) = 2.83$ ,  $p < .001$ ; Postignuće:  $t(905) = 3.96$ ,  $p < .001$ , Moć  $t(905) = 2.07$ ,  $p < .05$ . Kod slovenskih ispitanika tri najdominantnije preferirane vrijednosti su: Hedonizam ( $M = 4.64$ ), Dobronamjernost ( $M = 4.61$ ) i Nezavisnost ( $M = 4.57$ ), a najmanje preferirane vrijednosti su Tradicija ( $M = 2.65$ ) i Moć ( $M = 2.95$ ). Kod ispitanika iz BiH tri najdominantnije vrijednosti su Dobronamjernost ( $M = 4.58$ ), Univerzalnost ( $M = 4.47$ ) i Nezavisnost ( $M = 4.44$ ), a najmanje preferirana vrijednost bila je Moć ( $M = 2.75$ ). Prezentirani rezultati dijelom se razlikuju u odnosu na podatke iz evropskih društvenih istraživanja iz 2012. godine, gdje su najizraženije vrijednosti kod slovenskih građana bile vrijednosti: Sigurnost, Univerzalnost i Tradicija. Ispitanici koji su učestvovali na izborima i koji namjeravaju i dalje učestvovati na izborima razlikuju se statistički značajno na pet vrijednosti u odnosu na neglasače: Dobronamjernost  $t(904) = 3.81$ ,  $p < .001$ ,

Univerzalnost  $t(905) = 3.34$ ,  $p < .001$ , Moć  $t(905) = -3.55$ ,  $p < .001$ , Konformizam  $t(904) = -3.23$ ,  $p < .001$  i Tradicija  $t(905) = -5.04$ ,  $p < .001$ . Politička aktivnost Slovenaca uglavnom je vezana za potpisivanje peticija, dok je kod ispitanika iz BiH vezana za kupovinu proizvoda zbog političkih ili etničkih razloga, te za susrete sa političkim subjektima. Rezultati upućuju da obje grupe ispitanika dijele sličnu vrijedonosnu orijentaciju, no da su Slovenci više usmjereni ka postizanju ličnog uspjeha, dok su ispitanici iz BiH pasivniji i skloniji održavanju ranijeuspostavljenih odnosa u društvu.

*Ključne reči:* vrijednosti, glasanje, politička aktivnost,

### Personal values and political activity of young people in FBiH and Slovenia

Results of several studies have shown that in Western Europe there is a correlation between Schwartz's model of personal values, social attitudes, political preferences and ideology. The aim of this study was to examine differences in the personal values of the respondents from Slovenia and Bosnia and Herzegovina, as well as to examine the differences between voters and non-voters. The sample included 907 respondents – 457 from Slovenia and 450 from Bosnia and Herzegovina. Age has varied in the range of 20-33 years ( $M = 24.29$ ,  $\sigma = 1.47$ ). The instruments accounted Schwartz's values questionnaire PVQ-40 and a check list of political activism.

Reliability of values scales ranged from .62 to .79 (BiH), and from .60 to .83 (Slovenia), which is relatively acceptable because of small number of items on a single scales. PVQ Inventory has a satisfactory factor validity: RMSEA = 0.053. All analyzes are performed in a first order dimensions, because the tested solutions of the second order had a poor factor validity. At the level of the first order value types significant differences in five motivational values have discovered. Respondents in BiH significantly differ from respondents from Slovenia on the values of the group Conservation values: Security:  $t(905) = 6.35$ ,  $p < .001$ ; Conformity:  $t(905) = 10.78$ ,  $p < .001$ ; Tradition:  $t(905) = 19.06$ ,  $p < .001$ , while the Slovenian respondents differ on values: Hedonism  $t(905) = 2.83$ ,  $p < .001$ ; Achievement:  $t(905) = 3.96$ ,  $p < .001$ , Power  $t(905) = 2.07$ ,  $p < .05$ . In Slovenian respondents three most dominant preferred values are: Hedonism ( $M = 4.64$ ), Benevolence ( $M = 4.61$ ) and Self-direction ( $M = 4.57$ ), and the least preferred values are Tradition ( $M = 2.65$ ) and Power ( $M = 2.95$ ). Three most dominant values among the respondents from Bosnia and Herzegovina were Benevolence ( $M = 4.58$ ),

Universalism ( $M = 4.47$ ) and Self-direction ( $M = 4.44$ ), and the least preferred value was Power ( $M = 2.75$ ). The presented results are substantially different compared to data from the European Social Research from 2012., where the most prominent values in Slovenian citizens were values: Security, Universalism and Tradition. Respondents who participated in the elections and who intend to continue to participate in the elections differ significantly on the five values in relation to non-voters: Benevolence  $t(904) = 3.81$ ,  $p < .001$ , Universalism  $t(905) = 3.34$ ,  $p < .001$ , Power  $t(905) = -3.55$ ,  $p < .001$ , Conformity  $t(904) = -3.23$ ,  $p < .001$  and Tradition  $t(905) = -5.04$ ,  $p < .001$ . Political activity of Slovenians is mainly related to petitions, while the political activity of respondents from BiH is related to the purchase of products for political or ethnic reasons and for meetings with political entities. Test results indicate that both groups share a similar value orientation, but that Slovenians were more focused towards achieving personal success, while respondents from B&H were more passive and more inclined to maintain earlier established relations in society.

Keywords: values, voting, political activity

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## Vrijednosti, društveni stavovi i predrasude politički aktivnih sudionika u BiH

U zadnjih pedeset godina brojne studije bavile su se pitanjem relacija između političkog ponašanja i političkih stavova. Najveći broj studija došao je do nalaza da postoji relativno postojana veza između društvenih stavova kao što su autoritarnost i sklonost ka ne prihvatanju jednakosti i predrasuda. Ovaj rad preispituje ulogu i značaj vrijednosti, desničarske autoritarnosti i sklonosti ka sociodominantnoj orijentaciji u objašnjavanju predrasuda kod muških politički aktivnih ispitanika. Ispitivanje je provedeno na 578 odraslih muških ispitanika. Uzorak je sastavljen od poduzoraka aktivnih članova četiri parlamentarne partije u BiH: SDA ( $n = 182$ ), SDP ( $n = 151$ ), SDS ( $n = 124$ ) i HDZ ( $n = 121$ ). Hronološka dob



ispitanika kretala se između 24 i 38 godina. Instrumentarij su činile četiri skale: Schwartzova skale vrijednosti PVQ-21, Skala sociodominantne orijentacije SDO, Skala desničarske autoritarnosti RWA, te posebno konstruisana Skala opštih predrasuda. Svi instrumenti imali su zadovoljavajuće mjerne osobine: PVQ-21 (Sopstveno odricanje  $\alpha = .71$ ; Samounapređenje  $\alpha = .71$ , Otvorenost za promjene  $\alpha = .74$ , Zadržavanje tradicionalnih odnosa  $\alpha = .72$ ); skala SDO  $\alpha = .81$ ; RWA  $\alpha = .86$ ; skala OP  $\alpha = .87$ . Prvi nivo analize uključivao je analizu razlika između aritmetičkih sredina na skalama u odnosu na pripadnost političkoj partiji. ANOVA je pokazala da se ispitanici razlikuju na skalama RWA:  $F(3,574) = 3249.19$ ,  $p < .001$  i SDO:  $F(3,574) = 4765.05$ ,  $p < .001$ , kao i na vrijedonosnoj dimenziji Otvorenost na promjene  $F(3,575) = 6.39$ ,  $p < .001$ . Najviše skorove na skali RWA i SDO imali su ispitanici iz poduzorka HDZ, dok su najviše skorove na podskali Otvorenost za promjene ostvarili ispitanici iz poduzorka SDP. Četiri dimenzije vrijednosti višeg reda, skala RWA i skala SDO relativno su skromni prediktori u objašnjavanju opštih predrasuda. Njihovim posredstvom moguće je objasniti tek oko 17% varijanse skale opštih predrasuda ( $R = .417$ ). Prema parcijalnom doprinosu najbolji pojedinačni prediktor je skala RWA ( $\beta = .31$ ), te SDO skala ( $\beta = .19$ ). Dobiveni rezultati upućuju da su društveni stavovi relativno skromni prediktori u objašnjavanju predrasuda. Odsustvo uticaja vrijednosti na objašnjavanje predrasuda najvjerovatnije je povezano sa činjenicom da je skala predrasuda previše široko i nedovoljno specifično konstruisana.

*Ključne reči:* vrijednosti, socio-dominantna orijentacija, predrasude

### Values, social attitudes and prejudice of politically active participants in BiH

In the last fifty years many studies have dealt with the issue of relations between political behavior and political attitudes. Most of the studies came to a finding that there is a relatively stable relationship between social attitudes such as authoritarianism and the tendency to not accepting equality and prejudices. This paper examines the role and importance of values, right-wing authoritarianism and tendency to social dominance orientation in explaining the prejudices of male politically active respondents. The survey was conducted on 578 adult male subjects. The sample is composed of four sub-samples of the active members of the parliamentary parties in BiH: SDA ( $n = 182$ ), SDP ( $n = 151$ ), SDS ( $n = 124$ ) and HDZ ( $n = 121$ ). Age of respondents varied between 24 and 38 years. The instruments included four scales: the Schwartz Value Questionnaire PVQ-21, the Scale of Social-dominance orientation SDO, the Scale of Right-wing Authoritarianism, RWA, and

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specially designed Scale of General Prejudice IP. All instruments had satisfactory measurement properties: PVQ-21 (Self-Transcendence  $\alpha = .71$ ; Self-Enhancement  $\alpha = .71$ , Openness to Change  $\alpha = .74$ , Conservation  $\alpha = .72$ ); SDO scale  $\alpha = .81$ ; RWA  $\alpha = .86$ ; IP scale  $\alpha = .87$ . The first level of analysis included an analysis of the difference between means on the scales with respect to political party affiliation. ANOVA showed that the respondents differ on scales RWA:  $F(3,574) = 3249.19$ ,  $p < .001$ , and SDO:  $F(3,574) = 4765.05$ ,  $p < .001$ , as well as on one dimension of values, Openness to Change  $F(3,575) = 6.39$ ,  $p < .001$ . The highest scores on a scale of RWA and SDO had respondents from the sub sample of the HDZ, while the highest scores on the sub scale Openness to change had respondents from the subgroup of SDP.

The four higher order dimensions of the values (Self-Transcendence, Self-Enhancement, Openness to Change, Conservation), the RWA scale and SDO scale are relatively modest predictors in explaining the general prejudice. Through them can be explained only about 17% of the variance of the scale of the general prejudice ( $R = .417$ ). According to a partial contribution the best single predictors are the RWA scale ( $\beta = .31$ ), and SDO scale ( $\beta = .19$ ).

The results suggest that social attitudes are relatively modest predictors in explaining prejudice. The lack of impact of the values on explaining the prejudices is most likely related to the fact that the scale of prejudices is too broad and insufficiently specifically constructed.

*Keywords:* values, social attitudes, prejudice



POSTER PREZENTACIJE

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### (Non)Word length effect measured in lexical decision task

Many recent studies have reported that word length has inhibitory effects on lexical decision. Impact of the length on nonword decision making is less clear. In this study the aim was to examine effects of written word and nonword length (number of characters) on reaction time in lexical decision task. In the lexical decision task, participants are required to decide as quickly as possible whether a letter string is a word or nonword. The design of the experiment was dependent, with repeated measures for 20 female participants of average age of 23. Independent variables, length of words and nonwords both had two levels (six and seven letters strings vs. five letters strings). Dependent variable was reaction time. Each participant responded to 15 words in each category and average reaction time was computed. Word frequencies were controlled. Nonwords were made as anagrams of words and had the same structure as words. Two t-test for dependent measures were computed and no effects were found between longer and shorter words and nonwords. But reaction times were correlated at high level (all above the .635 and significant at the level of .01). T test for dependent measures has showed that difference between average word and nonword recognition times with 19 degrees of freedom was significant ( $p = .00$ ) with the effect size of 1.37. The results indicate that participants have great consistency in response, but examined effects were not found. This experiment was held as pre-test for other experiment and had too few participants, only one group of the results had normal distribution. Decision for nonwords was statistically slower than for words and that effect was observed in many other studies. The possible explanation is that before rejecting structured nonwords each part of mental lexicon (lexicon in long term memory) has to be examined. This results are suggesting that with larger number of participants and greater letter string difference effect could be observed, because some classical effects are already observed.

**Keywords:** lexical decision task, word length, nonword length

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### Relations between parents' upbringing styles and childrens' empathy and altruism

Empathy and altruism represent the constructs which occupy the interest of authors within various fields of psychology. Therefore, we have endeavored to deal with these constructs, using the parents' upbringing styles, as one of the factors that may affect their development. The main aim of this research was to examine the prediction of altruism and empathy in older school-age children, which was based on the perception of their parents' upbringing styles. Within additional objectives, we examined the correlation between empathy and altruism, as well as gender differences in these variables. The research was included 249 primary school pupils (113 boys; average age 14 years). Data were collected using following questionnaires: VS scale, which were used for the assessment of parents' upbringing styles, EMI questionnaire, which was used for the assessment of empathy, while altruism was measured with the questionnaire specially designed for this study. The results suggest that degree in which children express empathy and altruism can be predicted, to same extent, on the basis of pedagogical actions that their parents apply (in the case of altruism  $R = .24$ ;  $p < .01$ ; in the case of empathy  $R = .25$ ;  $p < .01$ ). The emotional dimension of parenting styles, which refers to emotional warmth and support of children, showed a greater power in predicting both empathy and altruism, in comparison to dimension of control. The results also indicate the presence of a positive correlation between empathy and altruism ( $r = .493$ ;  $p < .01$ ), as well as a statistically significant gender difference in these variables, in favor of girls (Willks' Lambda =  $.699$ ;  $p < .01$ ). Results of this study confirm to some extent the initial assumptions, as well as the results of some previous research in this area.

**Keywords:** parents' upbringing styles, empathy, altruism

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### Structure of Short Dark Triad (SD3): Gender differences and relationship with HEXACO model

Dark Triad construct consists of three socially aversive traits - Machiavellianism, narcissism, and psychopathy. Recently, Jones and Paulhuls developed and validated the Short Dark Triad (SD3), a brief proxy measure of those three traits. In this study we examined the congruency of factor structure on male and female subsamples, as well as the relationship between SD3 scales and HEXACO personality dimensions. Data was collected on general population in Serbia: N = 677 (338 male), age 18 to 73 (M = 30.34, SD = 12.40), and on mostly student population in Croatia: N = 798 (167 male), age 18 to 54 (M = 23.29, SD = 4.95). Factor analyses confirmed three-factor solution of the SD3, with two items from Machiavellianism scale having high saturations on Psychopathy factor. These items refer to manipulation and revenge, which are on Psychopathy items more pronounced and cruel. Tucker's congruence coefficients indicate that factor structures on male and female subsamples are congruent, and are .98, .98 and .95 for Psychopathy, Machiavellianism and Narcissism, respectively. Although there were no gender differences in factor structure, there were gender differences in results on all three SD3 scales, with males having higher results than females. Therefore, we conducted separate regression analyses for males and females, predicting SD3 dimensions with HEXACO personality traits. Results showed that Machiavellianism was predicted with the same predictors on both subsamples (explaining 24% variance in male and 29% in female subsample), with Honesty-Humility as the most pronounced negative predictor among the HEXACO traits. Significant negative predictors of Psychopathy in both subsamples (explaining 33% variance in male and 29% in female subsample) were Honesty-Humility, Agreeableness, Emotionality and Consciousness, while on female subsample Extraversion had a small, but significant contribution. Finally, the most notable gender differences were in predictors of Narcissism (with 40% variance explained in male and 34% in female subsample), which is the "lightest" dark trait among three. While the Extraversion was the most pronounced positive and Honesty-Humility

the most pronounced negative predictor on both subsamples, on male subsample significant negative predictor was also Agreeableness, while on female subsample it were Emotionality (negative direction) and Openness to Experience (positive direction). In other words, narcissism in males is related to anger and antagonism, while in females it is also related to some positive characteristics like emotional stability, consciousness and openness. Both the congruence of factor structures and gender differences in our sample reflect theoretically meaningful relations between gender and the dark traits that are discussed in terms of evolutionary psychology.

*Keywords:* dark triad, SD3, HEXACO, gender differences, factor congruence

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### The processing of nominals in Serbian: nouns with –nje suffix

Deverbal nominalization is defined as a process in which a noun is formed out of a verb that denotes a process or a result of an activity. On the one hand, process nominals (e.g. rešavanje) are formed out of imperfective verbs (e.g. rešavati), with an aspectual marker (affix –va–). On the other hand, result nominals (e.g. rešenje) are formed out of perfective verbs (e.g. rešiti) in which aspectual marker is not present. Theoretical aspects of nominalization were analyzed in many previous studies, but the cognitive processing of nominalizations has not received much attention except in one study in German (Clashen et al., 2002). These authors have shown that our cognitive system is sensitive to nominalization, but they have not investigated deeper lexical processing of nominal nouns. To our best knowledge, studies on the cognitive processing of nominalization have not been conducted in Serbian.

The aim of the present study was to investigate the cognitive processing of process and result nominal nouns in Serbian. Also, it was necessary to test whether there is a difference in the cognitive processing of perfective and imperfective verbs in Serbian, of which the nominal nouns are formed. The assumption was that

more time is needed for the processing of imperfective verbs and process nominal nouns, because of more complex structure (aspectual marker). The first experiment explored whether there was a difference in the reaction times to perfective (e.g. dati) and imperfective verbs (e.g. davati). The stimuli presented to participants (N = 48) in a visual lexical decision task were 36 pairs of verbs (e.g. dati/davati). Before analyzing the data, word frequency and word length were transformed with log-transformation, and reaction times with inverse transformation, in order to get a better approximation to a Gaussian distribution. After controlling of trial order, word frequency, word length, and random-effects of subjects and stimuli, Linear Mixed-Effects Model revealed that there is no difference in processing of perfective and imperfective verbs ( $\beta = .04$ ;  $t(65) = 1.67$ ;  $p < .01$ ). The second experiment was aimed at establishing whether there was a significant difference in reaction times to result nominal nouns (e.g. rešenje) and process nominal noun (e.g. rešavanje). The stimuli presented to participants (N = 48) in a visual lexical decision task were 19 pairs of deverbal nouns (e.g. rešenje/rešavanje). The same data transformations were used as in the first experiment. After controlling of trial order, word frequency, word length, and random-effects of subjects and stimuli, Linear Mixed-Effects Model revealed that there is no difference in processing of process and result nominals ( $\beta = .01$ ;  $t(32) = .50$ ;  $p < .01$ ). The overall results might suggest that lexical processing of this phenomenon is amorphous, otherwise that presence of additional morpheme (affix --va--) does not create any differences in processing of two different types of deverbal nouns.

*Keywords:* deverbal nouns, nominalization, amorphous morphology

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### The use of subjective work efficiency criteria by Slovenian managers

In the field of managerial work efficiency evaluation we often encounter the problem of how to separate manager's work efficiency from company's efficiency. The second issue that arises is how to measure manager's efficiency and not just his effectiveness, because measuring effectiveness shifts focus only on the end



results, no matter the costs and is therefore not a very good representative measure for managerial work evaluation.

In order to control managers' work efficiency he/she has to choose criteria personally by which he/she is going to do that – he can use measurable, objectively set criteria or unmeasurable, subjectively set criteria. If manager does not use the objectively set measurable criteria to assess his professional activities that can become an obstacle on his way of mastering new methods and approaches to activities in the fast developing world where working environments and demands change rapidly.

97 Slovenian managers, aged 28 – 42 with minimum of 3 years working experience in the management field and minimum of 5 subordinates participated in the study. The questionnaire with 40 criteria was prepared and managers reported about the use of each criteria on 1 (almost never) to 4 (almost always) ranged scale. The wide range of demographic data was included to discover differences between groups of managers based on: sex, age, education, years of working experience, number of subordinates, size and ownership of organisation and the sector organisation operates in.

We found no differences in managerial use of objectively measurable and subjective, unmeasurable criteria, managers use both groups of criteria in similar amount, which does not imply the use of carefully selected set of criteria. After dimension reduction, we found that managers in public sector pay less attention to criteria based on the results ( $t = -2.197$ ;  $p < .05$ ), which we think is understandable because of the organisation of public sector in Slovenia. We also found that having more years of working experience in management field ( $t = 2.881$ ;  $p < .005$ ) and being more educated in the management field ( $t = 5.218$ ;  $p < .001$ ), leads to more attention paid to the use of subjective criteria which focus on results ( $R^2 = .310$ ;  $F = 21.097$ ;  $p < .001$ ). Additional short educational courses in management field encourage the broader use of subjective criteria mainly for those who do not have the primary education in management field ( $F = 8.813$ ;  $p < .001$ ).

Results imply that Slovenian managers do not use optimal sets of criteria and could make better, more objective choices of what subjective criteria to use in monitoring their efficiency. As it shows, education in the managerial field seems to be influential factor in choosing the criteria, therefore, additional educational programmes and courses should be applied to assist managers in knowing to better

control their efficiency in various contexts and by that increase also the efficiency of the Slovenian organisations.

**Keywords:** manager, work efficiency, effectiveness, subjective measures, Slovenia

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### Unconditional self-acceptance and explanatory style in ego-provoking situation

The aim of this study was to explore relation between unconditional self-acceptance (USA) and explanatory styles in ego-provoking experimental situation, with positive and negative outcomes. The USA represents a person's ability to value and fully accept himself, even though his behaviors are not always praiseworthy (Chamberlain & Haaga, 2001; Ellis, 1997). On the other hand, explanatory style help us understand how people explain causes of life events. Since USA is offered by RE&CBT as an alternative to the global self-evaluation, both in situations of success and failure, we aimed to explore its relationship with the attribution of these events. We used Seligman's (2006) explanatory styles and predicted that participants with higher USA would have a tendency toward optimistic explanatory style, while those with lower USA would employ a pessimistic explanatory style.

In order to test our hypothesis, we simulated a public speaking situation. Students (N = 182) were given randomly assigned positive and negative feedbacks on their performance. We used Unconditional Self Acceptance Questionnaire (USAQ: Chamberlain & Haaga, 2001) for measuring USA, while explanatory styles were measured using Situational Attributional Style, constructed for the purpose of this study following Peterson & Seligman (1984). Two-way ANOVA showed that the effect of USA (high vs. low) on an explanatory style depends on the type of a feedback (positive vs. negative) ( $F(1,110) = 4.29, p < .05$ ). In case of attribution of

success (positive feedback), participants with high USA have higher scores on explanatory scales questionnaire than participants with low USA. On the other hand, in case of attribution of a failure (negative feedback) participants with high USA have lower scores on this questionnaire than low USA participants. Given that the scores on explanatory styles questionnaire have opposite meanings in situations of success and failure, the obtained interaction actually means that participants with high USA are more optimistic than low USA participants in both success and failure: they attribute success/positive feedback as internal, stable and global, while their attribution of failure/negative feedback is external, unstable and specific. Bearing in mind that this pattern of attributions has shown to be „mentally healthy“, obtained relations between USA and explanatory styles indicates that USA might have positive influence on mental health, which is exactly what RE&CBT assumes.

Keywords: unconditional self-acceptance, explanatory styles, feedback, RE&CBT

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### Efekat eksperimentalnog konteksta na obradu višeznačnosti reči

Ranija poređenja brzine obrade polisemičnih reči i homonima u odnosu na jednoznačne reči, pokazala su da se polisemične reči obrađuju brže, a homonimi sporije od jednoznačnih. Taj nalaz je bilo u skladu sa dotadašnjim nalazima u engleskom jeziku. Ovo se tumačilo konekcionistačkim modelom koji je veću brzinu obrade polisemičnih reči pripisivao njihovim široko distribuiranim preklopljenim značenjima koja su omogućavala veći nivo povratne aktivacije sa semantičkog na ortografski nivo. Istovremeno, duže vreme obrade homonima pripisano je njihovim odvojenim značenjima i kompeticijom koja je produžavala vreme obrade. Međutim, u istraživanjima koja su izvedena na srpskom jeziku, ova dva efekta demonstrirana su u dva odvojena istraživanja. Cilj ovog istraživanja bio je da ustanovimo da li će se dobiti isti efekat kada se oba tipa višeznačnosti stave u isti eksperimentalni kontekst. Osnovna hipoteza je bila da će se, kao i u odvojenim poređenjima, dobiti raspored (od najbržeg do najsporijeg) polisemija-

jednoznačnost-homonimija. U istraživanju je korišćen zadatak vizuelne leksičke odluke i učestvovalo je 39 ispitanika. Rezultati analize po ispitanicima je pokazali su da poredak koji smo očekivali nije dobijen jer razlike nisu bile značajne ( $F(2,76) = 1.71, p = .19$ ), kao ni u analizi po stimulusima ( $F(2,102) = .81, p = .45$ ). Zabeleženi rezultati su veoma intrigantni jer su zabeleženi na stimulusima koji su identični stimulusima prikazanim u eksperimentima u kojima su odvojeno zabeležene brža obrada polisemičnih reči i sporija obrada homonima u odnosu na jednoznačne reči. Stoga je ovaj nalaz od velikog značaja za ispitaivanje obrade višeznačnih reči jer ukazuje na značaj eksperimentalnog konteksta i otvaraju nova istraživačka pitanja. Jedan od mogućih pravaca u kom mogu da krenu dalja istraživanja predstavlja detaljnije razgraničavanje polisemije koja se javlja unutar odvojenih značenja homonima.

*Ključne reči:* višeznačnost, polisemija, homonimija, leksička odluka

### The Effect of Experimental Context on Processing of Lexical Ambiguity

Prior comparisons of processing time of polysemous words and homonymy to unambiguous words revealed that, when compared to unambiguous words, polysemous words were processed faster, whereas homonymous words took more time to process. Those findings were in line with findings in English language and were interpreted by the connectionist model of word recognition. According to this model, faster processing of polysemous words comes from their related meanings that do not compete hence leading to higher level of activation. Along the same line, slower processing of the homonymous words comes from their unrelated meanings that compete for activation and consequently lead to lower activation. However, in experiments conducted in Serbian language, the two effects (polysemy advantage and homonymy disadvantage) were demonstrated in two separate studies. The goal of this research was to establish whether the same order of processing times will emerge when both types of ambiguity are put in the same experimental context. Our hypothesis was that the same order of processing times will show up in the experiment as it were when two types of ambiguity were separately compared to monosemy. The expected order (from fastest to slowest) was polysemy, monosemy and then homonymy. The experiment used visual lexical decision procedure and 39 participants took part in it. Results of analysis by participants didn't show the expected order since no difference was significant ( $F(2,76) = 1.71, p = .19$ ). Similar result was found in the analysis by stimuli ( $F(2,102) =$

.81,  $p = .45$ ) which also showed no significant difference. The observed result is highly intriguing as the stimuli presented in this experiment were identical to stimuli presented in previous studies that tested for polysemy advantage and homonymy disadvantage in two separate studies. Thus they point to the role of experimental context on effects of different sorts of lexical ambiguity and invite new research efforts. One possible line of research is to deal with multiple senses (polysemy) that exists within separate meanings of homonymous words.

Keywords: lexical ambiguity, homonymy, polysemy, lexical decision

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### Egzekutivne funkcije kao prediktori opšte intelektualne sposobnosti

Egzekutivne funkcije (EF) predstavljaju multidimenzionalni koncept kojim su obuhvaćeni procesi kontrole, organizacije i usmeravanja ponašanja ka postizanju unapred jasno postavljenog cilja. Neki od često navođenih elemenata EF jesu usmeravanje i raspodeljivanje pažnje, kontrola impulsa i samoregulacija, korišćenje radne memorije, planiranje i organizacija ponašanja, korišćenje fidbeka, mentalna fleksibilnost. Kakoneke komponente EF korespondiraju sa konstruktom inteligencije, nameće se pitanje da li su egzekutivne funkcije centralna komponenta inteligentnog ponašanja, te da li je inteligencija svodiva na interakciju različitih procesa koji bi odgovarali pojmu EF. Slaba povezanost između performanse na merama EF i nekim standardnim merama opšte inteligencije dobijena u ranijim studijama, objašnjavana je relativnom zavisnošću upotrebljenih testova inteligencije od kristalizovane inteligencije. Cilj ovog istraživanja bio je utvrditi da li se neke komponente egzekutivnih funkcija pojavljuju kao prediktori g-faktora merenog zadacima fluidne inteligencije. Za merenje g-faktora upotrebljene su Progresivne matrice za napredne, set2 (APM). Za operacionalizaciju EF korišćeni su sledeći pokazatelji dobijeni Viskonsin testom sortiranja karata (WCST): broj (ne) perseverativnih grešaka (kao mera mentalne fleksibilnosti), neuspeh u održanju

skupa (kao mera radne memorije) i broj grešaka na formi b Testa pravljenja traga - TMTb (kao mera podeljenje pažnje i simultanog konceptualnog praćenja). Uzorak je sačinjavalo 255 odraslih ispitanika iz opšte (nekliničke) populacije, starosti od 20 do 70 godina, prosečne starosti 38 godina (SD = 14.78), ujednačene polne strukture (51,4% žena). Kako bi se ispitale relacije EF i g-faktora primenjena je višestruka regresiona analiza u kojoj se kao set prediktora pojavljuju mere EF, a kao kriterijumska varijabla ukupni skor na setu 2 APM. Prediktorskim setom mera egzekutivnih funkcija kao celinom objašnjeno je 28% ukupne varijanse kriterijuma,  $F(4,238) = 22,92, p < .001$ . Statistički značajan pojedinačni doprinos pokazala su dva od četiri upotrebljena prediktora: perseverativne greške na WCST (beta = -0.2,  $p < .001$ ) i greške na TMTb (beta = -2.36,  $p < .001$ ). Rezultati ukazuju da neke od egzekutivnih funkcija, kao što su mentalna fleksibilnost i simultano konceptualno praćenje, u manjoj meri objašnjavaju postignuće na merama fluidnog vida opšte intelektualne sposobnosti kod zdrave populacije odraslih. Značajan deo neobjašnjene varijanse g-faktora argument je u prilog modelu prema kome g-faktor odražava specifičnu kognitivnu funkciju, koja doprinosi uspešnom izvođenju u različitim kognitivnim kontekstima i koja nije u potpunosti svodiva na komponente egzekutivnih funkcija merene u ovom istraživanju.

Rad je nastao u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije (ON179006).

*Ključne reči:* egzekutivne funkcije, g-faktor, opšta intelektualna sposobnost, Viskonsin test sortiranja karata, Testa pravljenja traga

### Executive functions as predictors of general intellectual ability

Executive functions (EFs) are a multidimensional concept that encompasses the processes of control, and organization and direction of behaviour towards a clearly predefined goal. Some of the frequently cited elements of EFs are direction and division of attention, impulse control and self-regulation, using working memory, behaviour planning and organisation, using feedback, mental flexibility, etc. Since some components of EFs correspond to the construct of intelligence, the question is whether EFs are a central component of intelligent behaviour and whether intelligence can be reduced to interaction between different processes that would correspond to the concept of EFs. The low correlation between the performance of EFs measures and some standard measures of general intelligence, which was observed in previous studies, was explained by relative dependence of the used intelligence tests on crystalized intelligence. The aim of this study was to

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determine whether some components of EFs appear as predictors of the g-factor measured by fluid intelligence tasks. Advanced Progressive Matrices, set II (APM) were used to measure the g-factor. In order to operationalise EFs, the indicators obtained through the Wisconsin Card Sorting Test (WCST) were used: number (ne) of perseverative errors (as a measure of mental flexibility), failure to maintain a mental set (as a measure of working memory), and number of errors on Trail-Making Test B (as a measure of divided attention and simultaneous conceptual tracking). The sample included 255 adult respondents from general (non-clinical) population, aged between 20 and 70, mean age 38 (SD = 14.78), with balanced gender structure (51.4% women). In order to examine the relation between EFs and g-factor, a Multiple Regression Analysis was used in which measures of EFs appear as a set of predictors, and total score on set II APM as a criterion variable. The entire predictor set of EFs explained 28% of the total variance of the criterion,  $F(4,238) = 22.92; p < .001$ . Statistically significant partial contribution has been shown by two of four of the predictors used: perseverative errors on WCST ( $\beta = -0.2; p < .001$ ) and error on TMTb ( $\beta = -2.36; p < .001$ ). The results indicate that some EFs, like mental flexibility and simultaneous conceptual tracking, explain to a lesser degree the achievements on the measures of fluid intelligence in a healthy population of adults. A significant portion of the unexplained variance of the g-factor is an argument in favour of the model in which the g-factor reflects a specific cognitive function which contributes to a successful execution in different cognitive contexts and which cannot be completely reduced to the components of EFs measured in this study.

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**Keywords:** EFs, g-factor, general intellectual ability, Wisconsin Card Sorting Test, Trail-Making Test

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## Faktorska struktura kratke forme Upitnika za ispitivanje stavova prema traženju profesionalne psihološke pomoći

Kratka forma Upitnika za ispitivanje stavova prema traženju profesionalne psihološke pomoći (ATSPPH-SF) Fišera i Farine već dvadeset godina predstavlja jedan od najšire korišćenih upitnika za ispitivanje ovih stavova u svetu. Rezultati faktorske analize pri njegovoj konstrukciji ukazuju na jednofaktorsku strukturu dok su dalja ispitivanja pored jednofaktorske sugerisala i dvofaktorsku strukturu. Cilj ovog rada je testiranje pretpostavki o jednofaktorskoj i dvofaktorskoj strukturi upitnika ATSPPHS-SF korišćenjem konfirmatorne faktorske analize.

Uzorku od 204 studenta Univerziteta u Beogradu (72.5% ženskog pola, uzrasta od 19 do 35 godina) zadat je upitnik ATSPPH-SF. Upitnik sadrži 10 stavki na koje se odgovara na četvorostepenoj skali („Ne slažem se“, „Više se ne slažem nego što se slažem“, „Više se slažem nego što se ne slažem“, „Slažem se“).

Konfirmatornom faktorskom analizom (AMOS 21, metoda maksimalne verodostojnosti) proverena je saglasnost jednofaktorskog i dvofaktorskog modela sa podacima. Na osnovu rezultata eksploratorne faktorske analize Elhaija, Schweinlea i Andersona iz 2008. godine dvofaktorskim modelom je pretpostavljeno da faktori međusobno koreliraju i da je svakim od faktora zasićeno po 5 stavki. Na osnovu sadržaja stavki koje reflektuju date faktore prvi faktor je određen kao Otvorenost prema traženju profesionalne psihološke pomoći (PPP) za sopstvene psihološke probleme, a drugi faktor kao Vrednovanje PPP i neophodnost traženja takve pomoći.

Rezultati pokazuju da je dvofaktorski model strukture upitnika ATSPPH-SF više u skladu sa podacima od jednofaktorskog (model sa jednim faktorom: hi-kvadrat/df = 2.238, RMR = 0.058, NFI = 0.805, TLI = 0.843, CFI = 0.878, GFI = 0.926, RMSEA = 0.078 [90%CI: 0.055–0.101]); model sa dva faktora: hi-kvadrat/df = 1.448, RMR = 0.042, NFI = 0.877, TLI = 0.943, CFI = 0.957, GFI = 0.956, RMSEA = 0.047 [90%CI: 0.008–0.074]); model sa jednim faktorom naspram modela sa dva faktora: hi-kvadratrazlika (1) = 29.107,  $p < .001$ ). Ocene koeficijenata sklopova u dvofaktorskom



modelu kreću se u intervalu od .37 do .68, a gotovo sva koeficijenti su veći od .50. Ocenjena korelacija između faktora iznosila je .70.

Zaključeno je da je plauzibilnije pretpostaviti da ATSPPH-SF ima dvofaktorsku strukturu, te da se njime ispituju dva međusobno povezana aspekta opšteg stava prema traženju PPP. S obzirom na relativno visoku korelaciju među faktorima u dvofaktorskom modelu opravdano je koristiti ukupni rezultat dobijen na osnovu svih stavki u Upitniku kao pokazatelj povoljnosti stava prema traženju PPP.

*Ključne reči:* ATSPPH-SF, stav prema traženju profesionalne psihološke pomoći, faktorska struktura, KFA

### Factorial structure of the Attitudes toward seeking professional psychological help scale-short form

Attitudes toward seeking professional psychological help scale-short form (ATSPPH-SF), developed by Fischer and Farina, represents for last twenty years one of the most widely used questionnaires for assessment of help-seeking attitudes. The results of factor analysis during its development indicated one-factor structure of the scale, while further testing suggested both one-and two-factor structure. The aim of this study was to test plausibility of one- versus two-factor structure of ATSPPHS-SF using confirmatory factor analysis.

A sample of 204 students of the University of Belgrade (72.5% female, aged from 19 to 35 years) filled out ATSPPH-SF. The questionnaire contains 10 items on which participants responded using four-point scale ("I disagree," "Disagree more than agree," "Agree more than disagree," "Agree").

Testing goodness of model-data fit for one- and two-factor models was conducted in AMOS 21 using confirmatory factor analysis (maximum likelihood method). Based on the previous results of exploratory factor analysis (Elhai, Schweinle, & Anderson, 2008), it was hypothesized in the two-factor model that factors are intercorrelated and that five items from the scale loaded by each of them. Taking content of items reflecting given factor into consideration first factor was named as Openness to seeking professional psychological help (PPH) for personal problems and second one as Valuation of PPH and Need in PPH.

The results show that two-factor model of the ATSPPH-SF structure fits more closely data than one-factor model (One-factor model: Chi-square / df = 2.238, RMR = 0.058, NFI = 0.805, TLI = 0.843, CFI = 0.878, GFI = 0.926, RMSE = 0.078 [90% CI:

0.055, 0.101]; Two-factor model: Chi-square / df = 1.448, RMR = 0.042, NFI = 0.877, TLI = 0.943, CFI = 0.957, GFI = 0.956, RMSEA = 0.047 [90% CI: 0.008, 0.074]; The One-factor versus Two-factor model: Chi-squarediff (1) = 29.107,  $p < .001$ ). Estimates of the pattern coefficients in the two-factor model ranged from 0.37 to 0.68, and almost all of the coefficients are greater than 0.50. Estimated correlation between factors was equal to 0.70.

We can conclude that it is more plausible to assume that ATSPPH-SF has a two-factor structure, and that it measure two interrelated aspects of the general attitude towards seeking PPH. Taking the relatively high correlation between factors in the two-factor model into consideration it is reasonable to use the total score obtained on the basis of all the items in the questionnaire as an indicator of the general attitudes toward seeking PPH.

**Keywords:** ATSPPH-SF, help-seeking attitudes, factor structure, CFA

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**Jesu li djeca s ADHD-om češće počinitelji ili žrtve vršnjačkog nasilja?**

Dosadašnja su istraživanja potvrdila povezanost simptoma ADHD-a s vršnjačkim nasiljem. Pojedini simptomi ADHD-a, posebice impulzivno ponašanje i nedostatak kontrole, uzimaju se kao rizični faktori za razvoj nasilničkog ponašanja. Cilj istraživanja bio je provjeriti jesu li djeca s dijagnozom i suspektna za razvoj ADHD-a češće počinitelji ili žrtve vršnjačkog nasilja te postoji li razlika u viktimizaciji i činjenju nasilja obzirom na tip ADHD-a poremećaja. U istraživanju je sudjelovao 501 učenik 4., 6. i 8. razreda, 50.7% dječaka i 49.3% djevojčica prosječne dobi  $M = 12.72$  ( $SD = 1.62$ ). Učenici su tijekom jednog školskog sata ispunili Upitnik o nasilju među školskom djecom (Velki i Kuterovac Jagodić, 2012) i Skalu hiperaktivnosti-impulzivnosti-pažnje (Vulić-Prtorić, 2006). Provedene su analize varijance. Djeca koja nemaju dijagnozu i koja su suspektna za razvoj ADHD-a u odnosu na djecu koja imaju dijagnozu ADHD-a pokazuju statistički značajno manje verbalnog ( $F(2,489) = 19.24$ ,  $p < .01$ ), tjelesnog ( $F(2,489) = 21.01$ ,  $p < .01$ ) i elektroničkog vršnjačkog nasilja

( $F(2,489) = 15.93, p < .01$ ). Nadalje djeca bez dijagnoze u odnosu na djecu s dijagnozom predominantno hiperaktivno-impulzivnog tipa i dijagnozom kombiniranog tipa pokazuju statistički značajno manje verbalnog ( $F(3,488) = 12.54, p < .01$ ) i tjelesnog vršnjačkog nasilja ( $F(3,488) = 14.83, p < .01$ ), kao i djeca predominantno nepažljivog tipa koja pokazuju statistički značajno manje verbalnog i tjelesnog vršnjačkog nasilja u odnosu na djecu s kombiniranim tipom ADHD-a. Djeca koja imaju kombinirani tip poremećaja u odnosu na svu ostalu djecu bez obzira na tip poremećaja statistički značajno više čine elektroničkog vršnjačkog nasilja ( $F(3,488) = 8.92, p < .01$ ). Djeca koja su suspektna i koja imaju dijagnozu ADHD-a statistički su značajno češće žrtve verbalnog ( $F(2,489) = 15.22, p < .01$ ), tjelesnog ( $F(2,489) = 19.41, p < .01$ ) i elektroničkog vršnjačkog nasilja ( $F(2,489) = 13.42, p < .01$ ). Djeca koja nemaju ADHD doživljavaju statistički značajno manje verbalnog ( $F(3,488) = 11.89, p < .01$ ) i tjelesnog vršnjačkog nasilja ( $F(3,488) = 14.89, p < .01$ ) od djece koja imaju predominantno hiperaktivno-impulzivni i kombinirani tip. Djeca koja nemaju ADHD ili imaju predominantno nepažljivi tip doživljavaju statistički značajno manje elektroničkog vršnjačkog nasilja od djece koja imaju predominantno hiperaktivno-impulzivni tip ( $F(3,488) = 11.89, p < .01$ ). Iz navedenih rezultata možemo zaključiti kako djeca s dijagnozom ADHD-a, a posebice kombinirani i predominantno hiperaktivno-impulzivni tip su u riziku od počinjena vršnjačkog nasilja, dok su djeca suspektna na ADHD rizična za viktimizaciju, posebice ako se radi o djeci s kombiniranim ili predominantno hiperaktivno-impulzivnim tipom. Simptomi hiperaktivnosti-impulzivnosti predstavljaju značajne čimbenike rizika za razvoj vršnjačkog nasilja. Pri izradi novih preventivskih programa svakako treba uzeti u obzir i djecu koja su suspektna za razvoj ADHD-a jer predstavljaju velik dio populacije rizične za razvoj vršnjačkog nasilja.

*Ključne reči:* ADHD, vršnjačko nasilje, vršnjačka viktimizacija

**Are children with ADHD more often the perpetrators or the victims of peer violence?**

Previous researches revealed the connection between the symptoms of ADHD and peer violence. Some symptoms of ADHD, especially impulsive behavior and the lack of control, are considered as risk factors for violent conduct. So, the main goal of this research was to check out whether children diagnosed with ADHD and children suspected of the presence of ADHD are more often the perpetrators or the victims of peer violence, and if there is a difference in victimization and conducting violence, considering the type of ADHD. Overall, 501 pupils (4th, 6th

and 8th grade of primary schools) participated in this research: 50,7% boys and 49,3% girls aged  $M = 12.72(SD = 1.62)$ . During one school class, the pupils have filled out a Questionnaire of violence amongst school children (Velki & Kuterovac Jagodić, 2012) and the Scale of hyperactivity-impulsivity-attention (Vulić-Prtorić, 2006). The analysis of variance have been performed. Children without ADHD and those suspected of the presence of ADHD, compared to children diagnosed with ADHD, showed significantly less verbal ( $F(2,489) = 19.24, p < .01$ ), physical ( $F(2,489) = 21.01, p < .01$ ) and electronic violence ( $F(2,489) = 15.93, p < .01$ ) towards their peers. Furthermore, children without ADHD in relation to children with predominantly hyperactive-impulsive type of ADHD and combined type showed statistically less verbal ( $F(3,488) = 12.54, p < .01$ ) and physical violence ( $F(3,488) = 14.83, p < .01$ ), as well as children with predominantly inattentive type, who showed less verbal and physical violence in relation to children with combined type of ADHD. Children with combined type of ADHD in relation to all other children, regardless of the type of disorder, revealed a statistically significant level of electronic violence towards their peers ( $F(3,488) = 8.92, p < .01$ ). Children that are suspected of the presence of ADHD are more often victims of verbal ( $F(2,489) = 15.22, p < .01$ ), physical ( $F(2,489) = 19.41, p < .01$ ) and electronic violence ( $F(2,489) = 13.42, p < .01$ ). Children without ADHD experience less verbal ( $F(3,488) = 11.89, p < .01$ ) and physical violence ( $F(3,488) = 14.89, p < .01$ ) than the children with predominantly hyperactive-impulsive type. Children without ADHD, and children with predominantly inattentive type experience less electronic violence from their peers, than the children with predominantly hyperactive-impulsive type ( $F(3,488) = 11.89, p < .01$ ). We can conclude that children diagnosed with ADHD, especially the combined and predominantly hyperactive-impulsive type, are at risk of conducting peer violence, while the children suspected of the presence of ADHD are at risk of victimization, especially in the case of combined type and hyperactive-impulsive type. The symptoms of hyperactivity-impulsivity represent significant risk factors for developing peer violence. In developing new prevention programs certainly must be taken into account the children with threshold ADHD because they represent a big amount of the population at risk for developing peer violence.

**Keywords:** ADHD, peer violence, peer victimization

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### Karakteristike obitelji, samopoštovanje i stres u adolescenciji

Obitelj kao primarna grupa ima najznačajniji utjecaj na razvoj mlade osobe. Ovo posebno dolazi do izražaja u razdobljima promjene i pojačanog stresa, kakvo je prelazak iz osnovne u srednju školu. Problem istraživanja je utvrditi koja obilježja obitelji imaju najveći utjecaj na samopoštovanje i razinu stresa kod adolescenata. Sudionici u istraživanju bili su učenici 1. razreda II. gimnazije Osijek, prosječne dobi od 15 godina. Sudjelovalo je 118 mladića i 267 djevojaka kroz tri godine, od 2012. do 2014.. Svrha prikupljanja podataka je trijažni postupak kojim se utvrđuje potreba učenika za savjetovanjem. U istraživanju su korišteni podatci o obiteljskim prilikama, Rosenbergova skala samopoštovanja i skala izvora stresa.

Rezultati pokazuju da je od procjenjivanih karakteristika obitelji, s učenikovim samopoštovanjem i razinom kumulativnog stresa najviše povezana procjena učenika o kvaliteti odnosa u obitelji ( $r = .28, p < .01$ ;  $r = -.38, p < .01$ ). Učenici koji izvještavaju o većoj kvaliteti odnosa u obitelji, izvještavaju i o značajno većoj razini samopoštovanja ( $F(3,379) = 11.21, p < .01$ ), te manjoj razini kumulativnog stresa ( $F(3,378) = 22.19, p < .01$ ). Učenici koji doživljavaju da su njihovi roditelji nezadovoljni njihovim školskim uspjehom, značajno su slabijeg samopoštovanja i viših razina kumulativnog stresa ( $F(3,372) = 5.49, p < .01$ ;  $F(3,371) = 6.48, p < .01$ ). Materijalne prilike obitelji povezane su, ali slabo s obje varijable ( $r = .17, p < .01$ ;  $r = -.17, p < .01$ ), što se očituje u razlici u rezultatu samopoštovanja ( $F(2,273) = 6.91, p < .01$ ) između učenika koji procjenjuju materijalne prilike lošijim u odnosu na ostale skupine (prosječne i bolje od većine). S druge strane, učenici koji procjenjuju materijalne prilike boljim od većine, imaju manju razinu kumulativnog stresa u odnosu na ostale skupine ( $F(2,372) = 5.44, p < .01$ ). Prisutnost oba roditelja u obitelji i redoslijed rođenja nisu se pokazali povezanim s rezultatima učenika u samopoštovanju i razini kumulativnog stresa. Dok prema redoslijedu rođenja nema razlika, broj djece u obitelji utječe na rezultat učenika u samopoštovanju, pri čemu jedinci općenito imaju veću razinu samopoštovanja ( $F(6,374) = 2.49, p < .01$ ).

Možemo zaključiti da na adolescentovu procjenu vlastite vrijednosti i njegov doživljaj izloženosti stresu značajniji utjecaj imaju odnosi među članovima u obitelji, te odnos roditelja prema samom učeniku, ali i materijalne prilike. Prisutnost oba

roditelja u obitelji ne rezultira razlikama među učenicima u razini samopoštovanja niti procjeni kumulativnog stresa. Iako neka istraživanja ističu bliskost s ocem u adolescenciji kao bitan prediktor samopoštovanja adolescenta (McCurdy i Scherman, 1996) ovo istraživanje upućuje na ključnu ulogu kvalitete odnosa u obitelji za psihološku dobrobit adolescenta.

*Ključne reči:* adolescencija, samopoštovanje, stres, obitelj

### Family characteristics, self-esteem and stress levels in adolescents

Family is the most significant social factor that influences the development of a young person. This is most apparent in periods of change, for example the transfer from elementary to secondary school. The aim of this study was to identify which family characteristics have the biggest influence on self-esteem and stress levels in adolescents. The participants were 385 first grade, high school students, who enrolled in II. gymnasium Osijek from year 2012. to year 2014. 267 of them were females. Participants completed Rosenberg's Self-Esteem Scale Questionnaire and a General Information Questionnaire for First Grade Students. The results indicate that the most important family characteristic that influences the self-esteem and stress level of adolescents is the perceived quality of family relations ( $r = .28, p < .01$ ;  $r = -.38, p < .01$ ). Students who perceive family relations to be good, have higher levels of self-esteem and lower stress levels ( $F(3,379) = 11.21, p < .01$ ;  $F(3,378) = 22.19, p < .01$ ). Second family characteristic that is associated to adolescent's self-esteem and level of stress is parent's perception of academic success of the student. Students whose parents are not pleased with his or hers academic results have lower levels of self-esteem and higher levels of stress ( $F(3,372) = 5.49, p < .01$ ;  $F(3,371) = 6.48, p < .01$ ). Financial stability of the family is significantly, although poorly correlated to those two variables ( $r = .17, p < .01$ ;  $r = -.17, p < .01$ ). As to the number of children in the family, students who have no siblings report higher levels of self-esteem. No differences were found in levels of self-esteem and levels of stress between students of single or both parents.

*Keywords:* adolescence, self-esteem, stress, family

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## Merenje zapošljivosti studenata i usluge karijernog vođenja i savetovanja

U avgustu mesecu 2014. godine nezaposlenost mladih uzrasta od 15 do 24 godine u Republici Srbiji iznosila je 41.7%, dok je stopa neaktivnost mladih u okviru iste uzrasne kategorije iznosila 71.2%. Nacionalna strategija za mlade za period od 2015. do 2025. godine kao i Strategija karijernog vođenja i savetovanja u Republici Srbiji ističe značaj koji usluge karijernog vođenja i savetovanja imaju na zapošljivost i na zaposlenost mladih i naglašava potrebu za kontinuiranim pružanjem i većom dostupnosti ovih usluga u srednjoškolskom i visokom obrazovanju. Istraživanje je imalo za cilj da proveri da li se zapošljivost studenata koji su u okviru kursa Upravljanje karijerom dobijali usluge karijernog vođenja i savetovanja razlikuje na početku i na kraju kursa. U istraživanju je učestvovalo 60 studenata psihologije, koji su slušali izborni kurs Upravljanje karijerom na trećoj godini studija. Najveći procenat ispitanika su činile žene (13.3% muškaraca i 86.7% žena) i 90% ispitanika je pripadalo starosnoj kategoriji do 24 godine. Pre početka kursa, zapošljivost studenata merena je upitnikom koji je konstruisan za potrebe istraživanja (Kronbahova alfa – .63). Tokom tri meseca trajanja kursa, studentima su kroz radioničarski rad pružane usluge karijernog vođenja i savetovanja. Radionice su obuhvatile: učenje osavremenom i tradicionalnom shvatanju pojma karijera, karijerno informisanje, pisanje radne biografije, pisanje motivacionog i propratnog pisma, pripremu za razgovor za posao i simulaciju razgovora za posao, karijerno savetovanje i aktivno traženje posla. Rezultati su pokazali da se zapošljivost ispitanika merena skalom zapošljivosti značajno razlikuje na početku i na kraju kursa ( $t(33) = -9.75, p < .01$ ), odnosno da ispitanici postižu veći skor na skali nakon što su dobili usluge karijernog vođenja i savetovanja. Rezultati takođe pokazuju da ispitanici prepoznaju volontiranje, prakse i različite oblike neformalnog obrazovanja kao sastavni deo karijere ( $M = 4.78; SD = 0.72$ ) i da su spremniji da preuzmu odgovornost za sopstvenu karijeru ( $M = 4.67; SD = 0.63$ ). Dobijeni rezultati govore u prilog pozitivnim efektima koje usluge karijernog vođenja i savetovanja imaju u pogledu zapošljivosti mladih. Takođe, dobijeni rezultati bi

mogli da ponude smernice za kreiranje programa karijernog vođenja i savetovanja za studente, koji bi imali za cilj da studentima olakšaju tranziciju iz sveta obrazovanja u svet rada.

*Ključne reči:* karijerno vođenje i savetovanje, zapošljivost, studenti

### Toward students' employability: Career guidance and counselling services

In August 2014, unemployment among young people aged 15 to 24 years in the Republic of Serbia amounted to 41.7%, while the inactivity rate of young people within the same age category was 71.2%. The National Youth Strategy 2015-2025 and The Strategy of Career guidance and counselling of the Republic of Serbia both emphasize the importance of career guidance and counselling services for the students' employability and employment. The aim of this study was to investigate whether psychology students who attended Career Management Course show different levels of employability at the end of the Course compared to the beginning level. During the three-months Course students had workshops regarding modern and traditional career, career informing, curriculum vitae, motivation and cover letter, job interview preparation with simulation, career counselling and active job searching. The results support the conclusions of many studies evidencing the positive impact of career guidance and counselling services on students' employability. The results offer guidelines for defining career guidance and counselling program for students, intended to facilitate the school to work transition.

*Keywords:* career guidance and counselling, employability, students

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### Odnos metakognicije, anksioznosti i stresa kod studenata

Cilj istraživanja bio je ispitati povezanost metakognicije, anksioznosti i stresa na uzorku studenata te razlike u tim varijablama s obzirom na godište studija i spol. U



istraživanju je sudjelovalo 267 sudionika; 118 studenata i 149 studentica preddiplomskog studija i 1. godine diplomskog studija Ekonomskog fakulteta u Osijeku. Korišteni su prevedeni Upitnik metakognicije (Cartwright-Hatton i Wells, 1997) i subskele anksioznosti i stresa Skale depresivnosti, anksioznosti i stresa (Reić Ercegovac i Penezić, 2012). Rezultati istraživanja pokazali su kako postoji statistički značajna umjerena pozitivna korelacija između metakognicije i anksioznosti ( $r = .479$ ) i metakognicije i stresa ( $r = .417$ ) te visoka pozitivna korelacija između anksioznosti i stresa ( $r = .769$ ). Analizom varijance ustanovljeno je kako postoje statistički značajne razlike u prosječnim rezultatima u varijabli procjene stresa među studentima različitih godišta studija ( $F(3,263) = 9.265$ ;  $p < .01$ ). Scheffeovim post hoc testom utvrđeno je kako studenti prve godine studija ( $M_1 = 30.71$ ;  $SD_1 = 8.554$ ) u prosjeku iskazuju više simptoma stresa u odnosu na studente treće ( $M_3 = 25.98$ ;  $SD_3 = 7.345$ ) i u odnosu na studente četvrte godine studija ( $M_4 = 24.00$ ;  $SD_4 = 6.510$ ). Također je analizom varijance utvrđena razlika u prosječnim rezultatima u varijabli anksioznosti između studenata različitih godišta studija ( $F(3,263) = 9.089$ ;  $p < .01$ ). Scheffeovim post hoc testom utvrđeno je kako studenti prve godine studija iskazuju da su anksiozniji ( $M_1 = 26.31$ ;  $SD_1 = 6.888$ ) od studenata treće godine studija ( $M_3 = 21.81$ ;  $SD_3 = 6.714$ ) kao i od studenata četvrte godine studija ( $M_4 = 20.76$ ;  $SD_4 = 6.217$ ). Na isti način ustanovljena je i razlika u prosječnim rezultatima u varijabli metakognitivnih (zabrinjavajućih) misli među studentima različitih godišta studija ( $F(3,263) = 4.610$ ;  $p < .01$ ) te je, također Scheffeovim post hoc testom, utvrđeno kako studenti prve godine studija imaju više metakognitivnih (zabrinjavajućih) misli ( $M_1 = 146.91$ ;  $SD_1 = 18.123$ ) od studenata četvrte godine studija ( $M_4 = 136.04$ ;  $SD_4 = 19.115$ ). Nije pronađena razlika između prosječnih rezultata studenata i studentica u varijabli procjene metakognitivnih (zabrinjavajućih) misli. Utvrđeno je kako postoji statistički značajna razlika u prosječnim rezultatima studenata i studentica u varijablama anksioznosti ( $M_{\text{ž}} = 23.87$ ;  $SD_{\text{ž}} = 6.868$ ;  $M_{\text{m}} = 22.12$ ;  $SD_{\text{m}} = 6.922$ ;  $F(1,265) = 4.232$ ;  $p < .05$ ) i stresa ( $M_{\text{ž}} = 28.34$ ,  $SD_{\text{ž}} = 8.265$ ;  $M_{\text{m}} = 25.36$ ;  $SD_{\text{m}} = 7.447$ ;  $F(1,265) = 9.376$ ;  $p < .05$ ); studentice iskazuju kako su, u prosjeku, u većoj mjeri anksiozne i pod većim stresom u odnosu na studente. Emocionalni problemi s kojima se neki studenti suočavaju tijekom studija mogu im otežati uspješno studiranje i ostvarivanje željenih akademskih ciljeva. Pravodobnim otkrivanjem takvih problema i pružanjem pomoći može im se omogućiti da u potpunosti ispune svoje potencijale.

*Ključne reči:* Metakognicija, anksioznost, stres, studenti

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## Relationship between metacognition, anxiety and stress among students

The aim of this study was to investigate the correlation between metacognition, anxiety and stress and the differences in their levels in function of year of study and gender. The sample consisted of 267 participants; 118 male and 149 female students of Faculty of Economics in Osijek (1st to 4th-year university students). In order to assess metacognition, anxiety and stress, Croatian translation of Meta-Cognition Questionnaire (Cartwright-Hatton and Wells, 1997) and stress and anxiety subscales of Depression, Anxiety and Stress Scale (Reić Ercegovac and Penezić, 2012) were used. The results showed that there is a statistically significant moderate positive correlation between metacognition and anxiety ( $r = .479$ ), anxiety and stress ( $r = .769$ ) and strong positive correlation between metacognition and stress ( $r = .417$ ). An analysis of variance showed that the effect of year of study was significant for stress ( $F(3,263) = 9.265$ ;  $p < .01$ ), anxiety ( $F(3,263) = 9.089$ ;  $p < .01$ ) and metacognition ( $F(3,263) = 4.610$ ;  $p < .01$ ), respectively. Post hoc analyses using the Scheffé post hoc criterion for significance indicated that the average result on stress subscale is significantly higher for first year students ( $M_1 = 30.71$ ;  $SD_1 = 8.554$ ) than for third - year ( $M_3 = 25.98$ ;  $SD_1 = 7.345$ ) and fourth-year students ( $M_4 = 24.00$ ;  $SD_4 = 6.510$ ). First-year students indicated that they are more under stress compared to third and fourth-year students. Post hoc analysis using the Scheffé post hoc criterion for significance indicated that the average result on anxiety subscale is also significantly higher for first year students ( $M_1 = 26.31$ ;  $SD_1 = 6.888$ ) than third - year ( $M_3 = 21.81$ ;  $SD_3 = 6.714$ ) and fourth-year students ( $M_4 = 20.76$ ;  $SD_4 = 6.217$ ). The same post hoc criterion indicated that the average result on metacognition scale is significantly higher for first year students ( $M_1 = 146.91$ ;  $SD_1 = 18.123$ ) than fourth-year students ( $M_4 = 136.04$ ;  $SD_4 = 19.115$ ), i.e. first year students less frequent have disturbing thoughts compared to fourth year students. Average results of anxiety ( $M_f = 23.87$ ;  $SD_f = 6.868$ ;  $M_m = 22.12$ ;  $SD_m = 6.922$ ;  $F(1,265) = 4.232$ ,  $p < .05$ ) and stress ( $M_f = 28.34$ ,  $SD_f = 8.265$ ;  $M_m = 25.36$ ;  $SD_m = 7.447$ ;  $F(1,265) = 9.376$ ,  $p < .05$ ) are significantly higher for female students. Students' emotional problems may hinder their achievement of desired academic goals, so identification of such problems and providing adequate assistance can enable them to fulfill their potential.

**Keywords:** metacognition, anxiety, stress, students

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## Odnos znanja o nasilju preko interneta i doživljenog/počinjenog nasilja preko interneta kod djece osnovnoškolske dobi

Nasilje preko interneta svakodnevno se događa putem različitih informacijskih tehnologija koji su lako dostupni djeci od najranije dobi. Cilj ovog istraživanja je bio provjeriti odnos znanja o nasilju preko interneta i doživljenog/počinjenog nasilja preko interneta kod djece osnovnoškolske dobi. Istraživanje je provedeno na 505 učenika predmetne nastave iz četiri osnovne škole sa šireg područja grada Osijeka (od toga 258 dječaka). Istraživanje je provedeno u sklopu većeg istraživanja, a za potrebe ovog istraživanja korištene su: anketa o učestalosti i navikama korištenja interneta, anketa kojom se ispitalo znanje o nasilju preko interneta te Skala doživljavanja i činjenja nasilja preko interneta (Cetin, Yaman, & Paker, 2011).

Gledajući načine na koje djeca provode vrijeme na internetu utvrđeno je da se najčešće dopisuju s prijateljima na internetu (53%), slušaju glazbu (49%), igraju igrice (36.9%) te traže podatke zbog osobnih interesa ili školskih zadataka (17.3%). Čak 83.7% učenika ima otvoren Facebook profil. Djeca veliki dio vremena provode na internetu te stoga postoji rizik za doživljavanje i činjenje nasilja preko interneta. Od ukupnog broja sudionika, njih 27.9% je doživjelo, a 25.1% ih je počinilo nasilje preko interneta (postotak sudionika koji je na skali barem jednom odgovorio da se doživljeno/počinjeno nasilno ponašanje javlja često ili uvijek). Dobivena je umjereno pozitivna korelacija između doživljenog i počinjenog nasilja ( $r = .56$ ;  $p < .01$ ) što je u skladu s nalazima prijašnjih istraživanja. Od 12 tvrdnji koje se odnose na ispitivanje znanja o nasilju i uznemiravanju preko interneta, 39.4% sudionika je uglavnom dalo točne procjene (odgovorili su točno na 11 ili 12 tvrdnji). 13.6% sudionika nije točno odgovorilo na šest ili više tvrdnji. Znanje o nasilju i uznemiravanju preko interneta u niskoj je negativnoj korelaciji ( $r = -.15$ ) s doživljavanjem nasilja preko interneta kao i s činjenjem nasilja preko interneta ( $r = -.20$ ).

Dobiveni rezultati ukazuju kako je internet svakodnevno prisutan u životima djece, međutim više od polovice djece ne prepoznaje da su neki od ponašanja na internetu oblici nasilja i uznemiravanja. Upoznajući djecu o rizičnim ponašanjima na internetu moguće je osvijestiti kako su određeni oblici ponašanja nepoželjni i na takav način smanjiti učestalost pojavljivanja takvih oblika ponašanja.

*Ključne reči:* doživljavanje i činjenje nasilja preko interneta, znanje o nasilju preko interneta, učenici

## Relationship between knowledge about cyberbullying and experiencing and committing cyberbullying among primary school children

Cyberbullying takes place through the different information technology that are easy accessible to the children from their earliest age. Main goal of this research was to explore relation of knowledge about cyberbullying and experiencing and committing cyberbullying among primary school children. The research was conducted on 505 elementary school pupils (258 boys), from fifth to eight grade. Habits and frequency of using the Internet scale (constructed for this research), Knowledge about cyberbullying scale (also constructed for this research) and Cyber Victim and Bullying Scale (Cetin, Yaman, & Packer, 2011) were used.

Most often children use Internet for chatting with friends (53%), listening to music (49%), gaming (36.9%) and researching facts for school (17.3%). The most popular social network is Facebook (even 83.7% participants have profile on it). Children spend a lot of their time on the Internet and therefore are fragile for experiencing and committing cyberbullying. 27.9% of participants have experienced and 25.1% have committed cyberbullying (those participants answered that they experienced/committed at least one type of behavior that represents cyberbullying often or always). The results showed that there is a statistically significant moderate positive correlation between experienced and committed cyberbullying ( $r = .56$ ;  $p < .01$ ). From 12 presented statements about cyberbullying 39.4% of participants correctly identified which of them represents cyberbullying (they correctly identified 11 or 12 statements). 13.6% of participants wrongly identified six or more statements (they didn't recognize which of the statements present cyberbullying). Knowledge about cyberbullying and committed cyberbullying is in weak negative correlation ( $r = -.15$ ) just as is correlation between knowledge about cyberbullying and experienced cyberbullying ( $r = -.20$ ).

Most of the children use internet on daily basis but a lot of them do not recognize different types of cyberbullying. By introducing children with different aspects of cyberbullying they could reduce adverse types of behavior.

**Keywords:** experiencing and committing cyberbullying, knowledge of internet violence, pupils

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## Predrasuda prema osobama prekomerne telesne težine kod pomagačkih profesija

U odnosu na druge oblike predrasuda, o predrasudi prema osobama prekomerne telesne težine znatno se manje govori u javnosti, što je posebno zabrinjavajuće jer se populacija osoba prekomerne težine u svetu svakim danom povećava. Osobe prekomerne telesne težine se smatraju same odgovornima za svoje stanje, stoga se predrasuda otvorenije izražava i direktnije je povezana s ponašanjem - diskriminacijom. Medijske poruke o mršavosti kao idealu telesnog izgleda uveliko doprinose istaknutosti ovoga problema, a uticaj se vidi već od najranije dobi i dugoročno rezultira ozbiljnim posledicama po mentalno zdravlje tih ljudi. Dosadašnja istraživanja ove predrasude kod profesija koje u najvećoj meri rade s osobama prekomerne telesne težine, vrlo su retka, stoga je cilj ovog istraživanja bio ispitati izraženost i sadržaj predrasude prema osobama prekomerne telesne težine kod studenata pomagačkih profesija. U istraživanju je učestvovalo 429 ispitanika, studenata psihologije i socijalnog rada Univerziteta u Zagrebu. Predrasuda je ispitana eksperimentalnom manipulacijom fotografije osobe kojoj je varirana težina (implicitna mera) i upitničkom merom stavova prema osobama prekomerne telesne težine (eksplicitna mera). Utvrđena je značajna razlika u procenama radne uspešnosti i u procenama tri dimenzije ličnosti osobe s obzirom na telesnu težinu na fotografiji. U odnosu na osobu prosečne težine, ispitanici su osobu prekomerne telesne težine procenjivali manje radno efikasnom ( $F(1,427) = 17.62, p < .01$ ), emocionalno nestabilnijom ( $F(1,427) = 39.53, p < .01$ ), manje ekstravertiranom ( $F(1,427) = 8.43, p < .01$ ) i manje otvorenom prema iskustvima ( $F(1,427) = 5.12, p < .05$ ). Uopšteno, studenti psihologije su, u odnosu na studente socijalnog rada "strože" procenjivali i osobu prekomerne telesne težine i osobu prosečne težine na radnoj efikasnosti ( $F(1,427) = 11.14, p < .01$ ); i na dimenzijama savesnosti ( $F(1,427) = 3.94, p < .05$ ), ugodnosti ( $F(1,427) = 9.79, p < .05$ ) i otvorenosti ( $F(1,427) = 31.65, p < .01$ ). Interakcija telesne težine na fotografiji i vrste studija procenjivača nije utvrđena. Ispitanici su u proseku iskazali i umereni nivo eksplicitne predrasude prema osobama prekomerne telesne težine. Utvrđena je i pozitivna povezanost predrasude s desničarskom autoritarnosti. Implicitne mere bile su

značajno, ali nisko povezane s eksplicitnom, što ukazuje da postoji "pokriveni" deo predrasude koji zahvata samo implicitna mera. Dobijeni rezultati daju uvid u nedovoljno istražene spoznaje o predrasudi prema osobama prekomerne telesne težine kod pomagačkih profesija te mogu biti korisne smernice za programe smanjenja te predrasude.

*Ključne reči:* predrasuda prema osobama prekomerne telesne težine, implicitna mera predrasuda, eksplicitna mera predrasuda, pomagačke profesije

### Prejudice towards obese people among helping - professions individuals

Compared to other forms of prejudice, the prejudice against obese is an under-represented problem in public sphere, which is particularly worrisome since the population of obese people in the world is increasing every day. Overweight people are considered responsible for their own condition; therefore the prejudice is more blatant and directly related to behaviour - discrimination. Media messages about slenderness as the ideal body image greatly contribute to the severity of this problem, and the impact can be seen from an early age and, in the long run, results in serious consequences for the mental health of obese people. Previous studies of this prejudice among professions which predominantly work with the obese are very scarce; hence the aim of this study was to examine the intensity and content of prejudice towards obese people among helping - professions students. The study included 429 participants –students of psychology and social work at The University of Zagreb. Prejudice was assessed using an experimental manipulation which consisted of a modified photograph (implicit measure), as well as the attitudes towards obese people scale (explicit measure). We found a significant difference in the estimates of work performance and estimates of the three dimensions of personality depending on the body weight in the photograph. In comparison to the average weight person, the obese person was estimated as less effective at work ( $F(1,427) = 17.62, p < .01$ ), more emotionally unstable ( $F(1,427) = 39.53, p < .01$ ), less extraverted ( $F(1,427) = 8.43, p < .01$ ) and less open to experience ( $F(1,427) = 5.12, p < .05$ ). Psychology students were more stringent in assessing both the overweight and the average weight person in work performance ( $F(1,427) = 11.14, p < .01$ ), conscientiousness ( $F(1,427) = 3.94, p < .05$ ), agreeableness ( $F(1,427) = 9.79, p < .05$ ) and openness ( $F(1,427) = 31.65, p < .01$ ). There was no significant interaction between body weight in the photograph and the study field of participants. On average, participants had a moderate level of explicit prejudice

against obese people. Also, results show a positive correlation of prejudice and right-wing authoritarianism. There were significant, but low associations between implicit and explicit measures of prejudice, suggesting that there is a "hidden" aspect of the prejudice that can be measured only implicitly. The results provide an insight into the under-researched understanding of prejudice against obese among helping professions and may provide useful guidelines for prejudice reduction.

*Keywords:* prejudice towards obese people, implicit measure of prejudice, explicit measure of prejudice, helping - professions

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### Prikupljanje podataka putem interneta: primer motivisanja povratnom informacijom

Prikupljanje podataka putem interneta donelo je nove mogućnosti, ali i izazove kada je reč o istraživanjima u psihologiji ličnosti. Otvorio se prostor da se na ekonomičan i efikasan način prikupe podaci na velikim i heterogenim uzorcima. Međutim, dosadašnja praksa pokazuje da je nemotivisanost ispitanika ključna prepreka u prikupljanju podataka putem interneta. S druge strane, veliki broj ljudi traga za informacijama o sebi i sopstvenim osobinama, posećujući različite sajtove i popunjavajući raznolike kvizove i testove nejasnog porekla i nepoznatih metrijskih karakteristika. Ono što ove kvizove odlikuje je zabavna i nesvakidašnja povratna informacija koja je ponuđena ispitanicima.

Cilj ovog rada je predstavljanje načina da se ispitanici motivišu da učestvuju u istraživanju upotrebom primamljive povratne informacije. Za potrebe rada kreirana je aplikacija u programskom jeziku Python. U okviru aplikacije ispitanici su popunjavali deo upitnika Velikih Pet plus dva koji se odnosi na pet velikih dimenzija ličnosti (50 stavki). Povratna informacija sastojala se od rezultata testiranja (opis profila ličnosti) i zabavnog dela (slika i opis filmskog lika kojem je ispitanik najbliži).

Početni spisak likova sastavljen je po navodima osam nezavisnih predlagača. Potom je 57 studenata koji su prošli kurs psihologije ličnosti procenjivalo likove prema

velikih pet osobina. Zadržani su likovi koji su procenjeni kao poznati i njima su priključeni likovi koje su predložili nezavisni eksperti. Profile su proverila i po potrebi korigovala četiri eksperta (psihologa). Konačnu bazu likova činilo je preko 50 muških i ženskih filmskih likova sa sopstvenim vrednostima izraženosti Velikih pet osobina (od 1 do 5).

U istraživanju je učestvovalo 195 ispitanika oba pola (60% ženskog), starosti od 18 do 57 godina ( $AS = 28.17$ ;  $SD = 9.32$ ), koji su bili posetioci Festivala nauke u Novom Sadu. Skorovi ispitanika su svedeni na istu skalu kao skorovi filmskih likova, transformacijom T skorova dobijenih na osnovu normi. Konačno, ispitaniku je dodeljivan lik čiji profil ima najveći kapa koeficijent slaganja sa njegovim profilom. Rezultati ukazuju na raznovrsnost u javljanju likova, posebno kod osoba ženskog pola. Najzastupljeniji profili kod muškaraca javljali su se u 9 do 19% slučajeva, a kod žena u 7 do 13% slučajeva. Takođe, heterogenost ponuđenih profila osobina onemogućava izdvajanje dominantnog profila.

Zaključak je da se ovakav način prikupljanja podataka pokazao vrlo efikasnim, jer je povratna informacija, naročito u vidu poređenja s filmskim likom, verovatno dodatno motivisala ispitanike da popune upitnik. Takođe, ovakav pristup popularizuje nauku među ispitanicima pritom im nudeći pouzdaniju i temeljniju procenu osobina.

*Ključne reči:* online testiranje, motivacija, Velikih pet, filmski likovi, procena ličnosti

### Online data gathering: An example of motivating participants through feedback

Using internet in data gathering opens both new possibilities and new challenges in personality psychology research. It enables efficient gathering of large amounts of data from heterogeneous samples. Current practice shows that the key obstacle in gathering data this way is lack of participants' motivation. Still, various sites with diverse quizzes and tests of unknown origin and psychometric characteristics remain quite popular, as people tend to seek information about themselves and their own traits. What makes such quizzes distinctive and popular is their interesting or unusual feedback.

The goal of this research is to present one of the ways of motivating people to participate in a study, in this case through use of interesting feedback. An application in Python was created and set-up online. This application enabled participants to complete part of Big Five plus two questionnaire measuring the big



five dimensions (50 items). Feedback consisted of test results (participant's scores on five dimensions; personality profile) and the fun part (description and a picture of a movie character with which the participant has most in common regarding personality traits).

The list of movie characters was constructed based on responses of eight independent informers. Afterwards, 57 students who completed a course in personality psychology rated the five personality traits of those movie characters. Only those characters that were rated as well-known were considered and additional characters suggested by independent experts were added. All the profiles were checked and on occasion corrected by four experts (psychologists). The final base included over 40 male and female characters with their scores on the five dimensions (ranging from 1 to 5).

Sample consisted of 195 participants of both genders (60% female), aging from 18 to 57 years ( $M = 28.17$ ;  $SD = 9.32$ ), visitors of a Science Festival in Novi Sad. Participant scores were transformed to the same scale used for movie characters, by means of transforming T scores based on existing norms.

Based on kappa coefficients, each participant was paired with a movie character so that their profiles are as similar as possible. Results show that various movie characters (profiles) appear, especially in female participants. Profiles that are most frequent in males appear in 9 to 19% of cases, and in females in 7 to 13% of cases. Heterogeneity of the most frequent profiles in both genders makes it unable to distinguish a dominant personality profile within the sample.

The main conclusion is that this approach of gathering data appears to be quite effective, because the feedback, especially the part regarding movie character similarities, probably additionally motivated participants to start filling the questionnaire. Also, this approach popularizes science among participants and gives them a more thorough and reliable personality trait assessment.

**Keywords:** online testing, motivation, Big Five, movie characters, personality assessment

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## Radni lokus kontrole i zadovoljstva poslom kod medicinskih sestara i tehničara

Dosadašnja istraživanja pokazala su kako unutarnji i vanjski lokus kontrole svake osobe utječe na zadovoljstvo poslom što može biti korisno za buduću organizaciju razumijevanja i poznavanja koju vrstu lokusa kontrole ima djelatnik i kako se to odražava na zadovoljstvo poslom. Cilj istraživanja bio je ispitati povezanost zadovoljstvo poslom medicinskih sestara i tehničara u odnosu na mjesto rada te utvrditi povezanost lokusa kontrole sa zadovoljstvom na poslu. Ispitivanje je provedeno na uzorku od 81 medicinske sestre i tehničara, iz KBC Osijek. Metode: Primijenjena je skala zadovoljstva poslom namijenjena ispitivanju generalnog stava i područja zadovoljstva poslom te skala radnog lokusa kontrole. Rezultati su pokazali kako nema značajne razlike u zadovoljstvu poslom prema mjestu rada. Prema područjima zadovoljstva poslom svi su ispitanici zadovoljni u području aktivnosti 15.3 (SD = 2.6), a najmanje u području napredovanja AS = 10.2 (SD = 2.6). Ukupna područja zadovoljstva poslom i lokusa kontrole nemaju značajnu povezanost, no prikazuje se značajna povezanost između unutrašnjeg lokusa kontrole i dva područja zadovoljstva poslom i to u negativnom smjeru. To su nadređeni ( $r = -.237$ ;  $p < .005$ ) i organizacija rada  $r = -.456$ ;  $p < .001$ ). Zaključak: Ukupno su medicinske sestre/tehničari zadovoljne svojim poslom, iako su vidljive varijacije u odnosu na radno mjesto tekod svih ispitanika prevladava veći stupanj vanjskog lokusa kontrole.

**Ključne reči:** medicinske sestre i tehničari, zadovoljstvo poslom, radni lokus kontrole

## Work locus of control in job satisfaction with nurses and technicians

Previous studies have shown that internal and external locus of control of each person affects job satisfaction which can be useful for the future organization of understanding and knowing what type of locus of control has employed and how it reflects on job satisfaction. The aim of this study was to examine the relationship

between job satisfaction of nurses in relation to workplace and to determine the relationship between locus of control with job satisfaction. The study was conducted on a sample of 81 nurses and technicians from the University Hospital Osijek. Methods: Job satisfaction scale was used for testing of general attitude and areas of job satisfaction and work locus of control scale. The results showed no significant difference in job satisfaction according to the place of work. According to the job satisfaction all the respondents are satisfied in the area of activity  $M = 15.3$  ( $SD = 2.6$ ), and the least in the field of promotion  $M = 10.2$  ( $SD = 2.6$ ). Total area of job satisfaction and locus of control have no significant association, but results shows a significant correlation between internal locus of control and two areas of job satisfaction in the negative direction: superior ( $r = -.237$ ,  $p < .005$ ) and organization of work  $r = -.456$ ,  $p < .001$ ). Conclusion: Total nurses/technicians are satisfied with their job, although noticeable is variations in relation to place of work and by all subjects dominated a greater degree of external locus of control.

**Keywords:** nurses and technicians, job satisfaction, work locus of control

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## Relacije psihopatije i bazičnih dimenzija ličnosti

Za razumevanje fenomena psihopatije od posebne važnosti jeste ispitivanje relacija psihopatije sa drugim psihološkim konstruktima, među kojima se posebno značajnim izdvajaju osobine ličnosti. Neki autori ističu da se psihopatija može razumeti i kao konstelacija određenih osobina ličnosti zasnovanih na petofaktorskom modelu. Uprkos različitim operacionalizacijama pet faktora ličnosti, čini se da su odnosi psihopatije sa njima postojani nezavisno od operacionalizacije. Većina istraživanja sugerše da tipičan psihopatski profil podrazumeva visoke skorove na Ekstraverziji, a niske na Neuroticizmu, Prijatnosti i Savesnosti, pri čemu je niska Savesnost u većoj meri odlika rizičnog životnog stila i antisocijalnog ponašanja, dok je niska Prijatnost u većoj meri povezana sa afektivnim crtama i manipulativnošću. S obzirom da na našoj populaciji nije proveravana povezanost Harova četiri faktora psihopatije, operacionalizovanih

preko Upitnika za procenu psihopatije, sa dimenzijama ličnosti petofaktorskog modela, cilj istraživanja jeste ispitivanje relacija ovih konstrukata na zatvorskoj populaciji. Na uzorku od 158 osoba lišenih slobode (76.7% muškog pola), prosečne starosti 35.65 godina (SD = 9.28) primenjeni su Upitnik za procenu psihopatije (PAQ) i upitnik Velikih pet plus dva (VP+2). Kako bi se utvrdile linearne kombinacije između dva skupa varijabli sprovedena je kanonička korelaciona analiza kojom su dobijena dva para statistički značajnih faktora. Prvi par kanoničkih faktora ukazuje na pozitivnu povezanost Ekstraverzije i Otvorenosti ka iskustvu i negativnu povezanost Savesnosti sa bihevioralnim stilom, odnosno Životnim stilom i Antisocijalnim ponašanjem, sa 26% objašnjene zajedničke varijanse. Ovakva konstelacija osobina ličnosti odražava visok aktivitet i sniženu samokontrolu koja se može manifestovati potragom za uzbudljivim situacijama i doživljajima. Drugi par kanoničkih faktora ukazuje nanegativnu povezanost Neuroticizma sa ličnosnim aspektima psihopata, tačnije Psihopatskim afektom, sa 14% objašnjene zajedničke varijanse. Nizak skor na Neuroticizmu mogao bi biti osnova afektivne zaravnjenosti koja odlikuje osobe sa psihopatskim crtama. Kliničke implikacije će biti prodiskutovane u radu.

*Ključne reči:* psihopatija, PAQ, osobine ličnosti, VP+2, kanonička korelaciona analiza

### The relation between psychopathy and basic personality dimensions

When it comes to understanding the phenomenon of psychopathy, examining its relation to other psychological constructs is of a great importance, with the personality traits being especially significant. Some authors point out that psychopathy can be seen as a constellation of certain personality traits based on the five-factor model. Despite the different operationalizations of the five personality factors, it seems as if their relation to psychopathy is independent to operationalization. Most research suggests that a typical psychopath profile consists of high scores on Extraversion, and low ones on Neuroticism, Kindness and Conscientiousness, with the low Conscientiousness mostly indicating risky life style and antisocial behaviour, and low Kindness mostly being connected to affective behaviour and manipulateness. Since our population has not been examined through Hare's four-factor model of psychopathy, operationalized by the Psychopathy Assessment Questionnaire, with the dimensions of personality of the five-factor model, the goal of the research is examining the relations of these constructs on prison population. In a sample of 158 people who have been deprived of freedom (76.7% male), with the average age of 35.65 years (SD = 9.28),

Psychopathy Assessment and the Big Five plus two questionnaires have been used. In order to establish a linear combination between the two groups of variables, a canonical correlation analysis was conducted, which gave two pair of statistically significant factors. The first pair of canonical factors indicates a positive connection between Extraversion and Openness to experience and a negative connection of Consciousness with a behavioural style, that is, Life style and Antisocial behaviour, with a 26% explained mutual variance. A personality traits constellation such as this one signifies high activity and low self-control which can be manifested through a search for exciting situations and adventures. The other pair of canonical factors indicates a negative connection of Neuroticism with personality aspects of psychopaths, that is, Psychopathical affect, with 14% explained mutual variance. Low Neuroticism score could serve as a base for flat affect which is found in people with psychopath tendencies. Clinical implications will be further discussed in this paper.

**Keywords:** psychopathy, PAQ, personality traits, Big five+2, cononical correlation analysis

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### Spolne i dobne razlike u korištenju interneta osnovnoškolaca

Korištenje interneta dio je svakodnevice, a potiče brojne reakcije stručne i opće javnosti. Stoga je cilj ovog istraživanja utvrditi trendove u korištenju interneta u osnovnoškolaca, osobito utvrditi postoje li spolne i dobne razlike u istom. U istraživanju je sudjelovalo 505 učenika viših razreda (od toga 258 dječaka) iz četiri osnovne škole sa šireg područja grada Osijeka. Provjeravajući pomoću kojih uređaja najčešće pristupaju internetu (bilo je moguće izabrati više uređaja), pokazalo se da više od polovice sudionika (njih 54.6%) koristi mobitele u tu svrhu, a 24.4% pristupa preko vlastitog računala. Ukupno 37.3% sudionika koristi zajednička obiteljska računala kojima roditelji imaju pristup. Spolne razlike su utvrđene u pristupanju internetu preko vlastitog računala ( $\chi^2 = 9.16$ ,  $p = .002$ ) i mobitela ( $\chi^2 = 6.64$ ,  $p =$

.010) pri čemu dječaci češće nego djevojčice pristupaju preko ovih uređaja. Učenici petih razreda češće nego ostale dobne grupe koriste obiteljsko računalo ( $\chi^2 = 24.64, p = .002$ ) i tablete ( $\chi^2 = 11.27, p = .010$ ), a učenici petih i šestih razreda rjeđe pristupaju internetu preko pametnog telefona ( $\chi^2 = 8.01, p = .046$ ). Prateći kako provode vrijeme na internetu utvrđeno je da se najčešće dopisuju s prijateljima (53%), zatim slušaju glazbu (49%) i igraju igrice (36.9%), dok u manjoj mjeri traže podatke zbog osobnih interesa ili školskih zadataka (17.3%). Dječaci češće igraju igrice nego djevojčice ( $\chi^2 = 47.69, p = .000$ ), a djevojčice češće slušaju glazbu ( $\chi^2 = 3.92, p = .048$ ) i dopisuju se s prijateljima ( $\chi^2 = 9.45, p = .002$ ) nego dječaci. Za razliku od učenika petih razreda koji češće igraju igrice ( $\chi^2 = 12.54, p = .006$ ), učenici sedmih i osmih razreda se češće dopisuju s prijateljima ( $\chi^2 = 16.46, p = .001$ ). Najviše učenika ima profil na Facebooku (83.7%), a najmanje na Twitteru (17.7%). Dječaci češće od djevojčica izjavljuju kako imaju otvoreni Facebook profil ( $\chi^2 = 4.60, p = .032$ ) i koriste Google + ( $\chi^2 = 4.17, p = .041$ ), a djevojčice češće koriste Instagram nego dječaci ( $\chi^2 = 27.74, p = .000$ ). Podaci mogu ukazivati na veći nadzor roditelja nad mlađim učenicima, na veću usmjerenost djevojčica i starijih učenika na interakciju s vršnjacima i prisnost te na izrazitu preferenciju Facebooka među društvenim mrežama.

*Ključne reči:* Internet, spolne razlike, dobne razlike, društvene mreže

### Gender and age differences in pupil's Internet use

Internet use is widespread and connected with many reactions. The goal of the present research is to determine trends in internet use, especially gender and age differences. The research was conducted on 505 elementary school pupils (258 boys), from fifth to eighth grade. The most used device for internet access is mobile phone (54.6%), then computer used by the whole family (37.3%), while in 24.4% they used their own computer. It was found that boys use their own computer ( $\chi^2 = 9.16, p = .002$ ) and mobile phones ( $\chi^2 = 6.64, p = .010$ ) more to access internet than girls. Fifth graders use family computer ( $\chi^2 = 24.64, p = .002$ ), and tablets ( $\chi^2 = 11.27, p = .010$ ) more than older pupils, while fifth and sixth grade pupils use mobile phones to access Internet less often than older participants ( $\chi^2 = 8.01, p = .046$ ). Pupils spend time on internet in personal messaging with friends (53%), listening to music (49%), playing games (36.9%), and researching facts for school (17.3%). Gender differences were found in gaming ( $\chi^2 = 47.69, p = .000$ ), with boys being those who play more games than girls, listening music – girls listen to music online more than boys ( $\chi^2 = 3.92, p = .048$ ), and personal messaging ( $\chi^2 = 9.45, p = .002$ ) –

girls use internet more than boys to interact with friends. Found age differences show that fifth graders engage in more gaming ( $\chi^2 = 12.54, p = .006$ ), while seventh and eighth graders engage in more personal messaging ( $\chi^2 = 16.46, p = .001$ ). The most popular social network in this sample is Facebook (83.7% participants have profile on it), and least popular is Twitter (17.7%). More boys than girls have Facebook profile ( $\chi^2 = 4.60, p = .032$ ), and use Google + ( $\chi^2 = 4.17, p = .041$ ), while girls use more Instagram than boys ( $\chi^2 = 27.74, p = .000$ ). This data can indicate that younger pupils are more supervised by parents, that girls and older pupils are more inclined toward interactions with peers and intimacy, and that Facebook is still the most popular social network.

**Keywords:** Internet, gender differences, age differences, social network

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### Uticaj sociodemografskih faktora na izgaranje zdravstvenih i prosvetnih radnika

Izgaranje je specifična vrsta stresa na radu, karakteristična po hronicitetu i složenoj strukturi. Ovo istraživanje se bavi sindromom izgaranja kod zdravstvenih i prosvetnih radnika. Cilj je ispitivanje mogućnosti objašnjenja izgaranja vrstom profesije i ostalim sociodemografskim varijablama. Izgaranje je definisano kao sindrom emocionalne iscrpljenosti, depersonalizacije i umanjenog ličnog postignuća. U Upitniku profesionalnog izgaranja Kristine Maslak [Maslach Burnout Inventory] navedeni aspekti sindroma izgaranja predstavljaju njegove zasebne dimenzije. To je instrument kojim je izgaranje operacionalizovano u ovom istraživanju.

Uzorak je činilo 186 ispitanika, od kojih je 100 zdravstvenih, a 86 prosvetnih radnika sa teritorije Zrenjanina i Novog Sada. Radi ispitivanja uticaja vrste profesije na nivo izgaranja, sproveden je t-test za nezavisne uzorke. Rezultati su pokazali da se zdravstveni i prosvetni radnici značajno razlikuju samo u pogledu emocionalne iscrpljenosti kao dimenzije izgaranja ( $t = -2.818, p < .005$ ). Radi ispitivanja interakcije

vrste profesije i drugih sociodemografskih varijabli na izraženost izgaranja, sprovedene su serije dvosmernih analiza varijanse. Zavisne varijable su činile dimenzije izgaranja, a faktore su činili: vrsta profesije, dužina radnog staža, bračni status i starost ispitanika. Dobijena je značajna dvostruka interakcija vrste profesije i dužine radnog staža u predikciji emocionalne iscrpljenosti ( $F(1,662) = 4.60, p < .05$ ). Viši stepen emocionalne iscrpljenosti je kod zdravstvenih radnika sa dužim radnim stažem. Dobijena je i značajna interakcija profesije i bračnog statusa u predikciji emocionalne iscrpljenosti ( $F(2,432) = 3.21, p < .05$ ) i umanjeno postignuća ( $F(2,227) = 4.14, p < .05$ ). Emocionalna iscrpljenost i umanjeno postignuće izraženiji su kod zdravstvenih radnika u braku, u odnosu na prosvetare sa istim statusom. Kod razvedenih zdravstvenih radnika je izraženija emocionalna iscrpljenost u odnosu na razvedene prosvetne radnike. Sa druge strane, samci u zdravstvu imaju niže skorove na emocionalnoj iscrpljenosti od samaca u prosveti, kao i manji pad postignuća.

Dobijeni rezultati su većinom objašnjeni specifičnostima radnog mesta. Jedan od primera je smenski rad u zdravstvu koji svakako utiče na porodični i lični život, a tako i na subjektivnu percepciju izgaranja.

*Ključne reči:* izgaranje, emocionalna iscrpljenost, umanjeno postignuće, zdravstveni i prosvetni radnici

### The influence of sociodemographic factors on burnout among healthcare and education workers

Burnout is a specific type of occupational stress, characterized by chronicity and complexity. The study concerns burnout syndrome in healthcare and education workers. The aim is to examine the possibilities of burnout explanation by profession and other demographic variables. Burnout is defined as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment. The Maslach Burnout Inventory (MBI) treats mentioned aspects of burnout as separate dimensions. That is the instrument which is used for burnout operationalization in this study.

The sample consists of 186 respondents, including 100 healthcare workers and 86 teachers from Zrenjanin and Novi Sad. The influence of profession to the burnout level is examined by t-test for independent samples. The results have shown that healthcare and education workers differ only in terms of emotional exhaustion ( $t = -2.818, p < .005$ ). The interaction effects of profession and other socialdemographic



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variables on burnout level is examined by two-way ANOVA. The dependent variables were separate burnout dimensions and factors were: profession, work experience, marital status and age of the respondents. There is a significant interaction between profession and work experience in prediction of emotional exhaustion ( $F(1,662) = 4.60, p < .05$ ). A higher level of emotional exhaustion is in healthcare workers with longer work experience. Furthermore, there are significant interactions between profession and marital status in prediction of emotional exhaustion ( $F(2,432) = 3.21, p < .05$ ) and reduced personal accomplishment ( $F(2,227) = 4.14, p < .05$ ). Emotional exhaustion and reduced accomplishment are more pronounced in healthcare workers who are married, compared to teachers with the same status. Emotional exhaustion is also more pronounced in healthcare workers who are divorced, than in divorced teachers. On the other hand, healthcare workers who are single have lower scores on the emotional exhaustion and reduced accomplishment scales in comparison to single teachers.

The results are mainly explained by the specifics of the workplace and job. One example is the shift work in healthcare, which certainly affects the family and personal life, as well as the subjective perception of burnout.

**Keywords:** burnout, emotional exhaustion, reduced accomplishment, healthcare and education workers



TRANSFEROV PODSKUP

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## Konstrukcija Upitnika bračne kvalitete

Brak predstavlja životnu, društvenu i zakonski uređenu zajednicu dviju osoba, obično različitog spola, koja nosi društvene, kulturne, vjerske i pravne posljedice. Iako ne postoji univerzalna definicija bračne kvalitete, često se uzima ona da je bračna kvaliteta multidimenzionalna varijabla koja uključuje međusobnu prilagodbu partnera i zadovoljstvo brakom. Budući da je bračna kvaliteta složen konstrukt, konstrukcijom Upitnika bračne kvalitete (MR-Q) nastojale su se obuhvatiti različite komponente bračne kvalitete. Ovaj upitnik u velikoj mjeri obuhvaća područja koja su u ranijim istraživanjima procijenjena važnima, ali i druga područja koja se pokazuju relevantnima za bračnu kvalitetu, ali nisu obuhvaćena prijašnjim upitnicima, poput socijalne podrške bračnim partnerima. Glavni cilj provedenog istraživanja bio je konstrukcija i validacija upitnika namijenjenog ispitivanju bračne kvalitete na populaciji od 25 do 64 godina.

Upitnik bračne kvalitete (MR-Q) mjera je samoprocjene koja je konstruirana kako bi ispitala različite aspekte bračne kvalitete pojedinca, poput slaganja, stabilnosti te zadovoljstva brakom. Istraživanje je provedeno na uzorku od 262 sudionika, od toga 152 (57.8%) žene i 110 (41.8%) muškaraca. Prosječna dob svih sudionika iznosi  $M = 40.038$  ( $SD = 11.355$ ). Istraživanje je provedeno pomoću posebno izrađenog internetskog obrasca, koji je distribuiran putem društvenih mreža (facebook grupe te Obiteljski portal „Ringeraja“). Korišten je i format papir-olovka kod kojeg su sudionici prikupljeni metodom snježne grude.

Komponentnom analizom uz Varimax rotaciju, dobiveno je dvofaktorsko rješenje, a komponente su nazvane Slaganje bračnih partnera koji objašnjava 17.76% varijance i Stabilnost braka koji objašnjava 16.7% varijance. Originalna verzija upitnika sastojala se od 48 čestica, no zbog podjednakih zasićenja na više faktora te zbog zasićenja manjih od .30, isključeno je 15 čestica. Prvoj komponenti pripada 19 čestica, a drugom 14 čestica. Pouzdanost cijelog upitnika je visoka i iznosi  $\alpha = .810$ . Cronbach alpha koeficijent za faktor Slaganje bračnih partnera iznosi  $\alpha = .855$ , te za Stabilnost braka iznosi  $\alpha = .722$ . Korelacija između dve komponente je  $r = .09$ . Ispitivanjem

konvergentne valjanosti dobivena je umjerena i značajna korelacija  $r = .51$  ( $p < .01$ ) između ukupnog rezultata na Upitniku bračne kvalitete (MR-Q) i ukupnog rezultata na revidiranoj Skali bračne prilagodbe (RDAS). Provjerom divergentne valjanosti dobiveni su rezultati koji ukazuju na umjerenu i značajnu negativnu korelaciju  $r = -.26$  ( $p < .01$ ) između ukupnog rezultata na Upitniku bračne kvalitete (MR-Q) i ukupnog rezultata na Brennanovom inventaru iskustava u bliskim vezama (ECR). Provjerom dijagnostičke valjanosti dobivena je umjerena, pozitivna i značajna korelacija  $r = .478$  ( $p < .01$ ) između ukupnog rezultata na Upitniku bračne kvalitete (MR-Q) i Skale zadovoljstva životom (SWLS).

*Ključne reči:* bračna kvaliteta, konstrukcija upitnika, zadovoljstvo brakom, zadovoljstvo životom

### Construction of the Marital Relations Questionnaire (MR-Q)

Marriage represents an environmental, social and legally regulated union of two people, usually of different genders, which carries social, cultural, religious and legal consequences with it. Although there is no universal definition of marital quality, it is often considered that the quality of marriage is a multidimensional variable that includes mutual adjustment of partners and their satisfaction with marriage. Although the quality of marriage is a complex construct, by construction of the Marital Relations Questionnaire (MR-Q), it was endeavoured to cover different components of the quality of marriage. The current questionnaire covers fields which have been considered as important in previous researches, but also other fields which are proven to be relevant for the quality of marriage, but they have not been covered by previous questionnaires, such as the social support for the partners. The main aim of the current research was to construct and validate the questionnaire intended to measure the quality of marriage on a population aged 25 to 64.

The Marital Relations Questionnaire (MR-Q) is a measure of self-assessment, which is designed to examine various aspects of marital quality of an individual, such as agreement, stability and satisfaction with marriage. The study was conducted on a sample of 262 participants; 152 (57.8%) of them were women and 110 (41.8%) were men. The average age of the participants was  $M = 40.038$  ( $SD = 11.355$ ). The research was conducted by a specially designed internet form, and was distributed by social networks (facebook groups and internet page Obiteljski portal "Ringeraja"). There was also a paper-pencil form of the questionnaire, for which snowball sampling has been used.

Component analysis with Varimax rotation has found that the given questionnaire contained two components or subscales – Agreement of marital partners, which explains 17.76% of the variance, and Stability of marriage, which explains 16.7% of the variance. The original version of the questionnaire consisted of 48 particles, but because of equal saturation of several factors, due to the saturation lower than 0.30, and substantial inadequacies to the established factors, 15 particles have been excluded. The first component consisted of 19 particles, and the second component of 14 particles. Reliability of the whole questionnaire was high at  $\alpha = .810$ . Cronbach alpha for the first factor was  $\alpha = .855$ , and for the second factor was  $\alpha = .722$ . Correlation between two factors was  $r = .09$ . Examining the construct validity showed moderate and significant correlation of  $r = .51$  ( $p < .01$ ) between the total score of Marital Relations Questionnaire (MR-Q) and the total score of Revised Dyadic Adjustment Questionnaire (RDAS). Examining the divergent validity showed moderate negative correlation of  $r = -.26$  ( $p < .01$ ) between the total score of Marital Relations Questionnaire (MR-Q) and the total score of short form of Brennan's Experiences in Close Relationships Scale (ECR). For the diagnostic validity moderate positive correlation of  $r = .478$  ( $p < .01$ ) has been found between the total score of Marital Relations Questionnaire (MR-Q) and the total score of Satisfaction with Life Scale (SWLS).

*Keywords:* quality of marriage, construction of a questionnaire, satisfaction with marriage, satisfaction with life

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### Razvoj Upitnika akademske prokrastinacije

Osnovni cilj ovog rada bio je konstruirati upitnik akademske prokrastinacije. Istraživanje je provedeno u Osijeku na uzorku od 249 studenata Sveučilišta Josipa Jurja Strossmayera (190 ženskog i 59 muškog spola). Raspon dobi sudionika bio je između 19 i 32 godine, a prosječna dob sudionika bila je 22.55 (SD = 1.98). Faktorskom analizom potvrđena je pretpostavljena jednofaktorska struktura ispitivanog konstrukta. Konačni oblik Upitnika akademske prokrastinacije sastoji se

od ukupno ukupno 26 čestica i ima visoku pouzdanost ( $\alpha = .95$ ). Viši rezultati na upitniku označavaju veću sklonost akademskoj prokrastinaciji. Rezultati dobiveni na Upitniku akademske prokrastinacije pokazuju da postoji statistički značajna razlika u sklonosti akademskoj prokrastinaciji između studenata koji su ponavljali i studenata koji nisu ponavljali studijsku godinu ( $t(247) = -4.806, p < .05$ ), pri čemu su studenti koji su ponavljali studijsku godinu skloniji akademskoj prokrastinaciji. Nisu dobivene statistički značajne razlike u sklonosti akademskoj prokrastinaciji prema spolu, vrsti i godini studija. Kako bi se ispitala konvergentna valjanost upitnika, izračunata je korelacija između ukupnog rezultata na Upitniku akademske prokrastinacije i ukupnog rezultata na Tuckmanovoj skali prokrastinacije. Dobivena je značajna visoka pozitivna korelacija ( $r = .88, p < .01$ ) što znači da studenti koji postižu viši rezultat na Upitniku akademske prokrastinacije, u prosjeku postižu više rezultate na Tuckmanovoj skali prokrastinacije. Radi utvrđivanja divergentne valjanosti dobivene mjere akademske prokrastinacije, izračunata je korelacija između ukupnog rezultata na Upitniku akademske prokrastinacije i ukupnog rezultata na Skali straha od neuspjeha pri čemu je dobivena niska i značajna korelacija ( $r = .13, p < .05$ ). Radi provjere inkrementalne valjanosti provedene su hijerarhijske analize gdje su kriterijske varijable bile prosjek ocjena, Skala percipiranog stresa i Skala zadovoljstva životom. Akademska prokrastinacija bila je najbolji prediktor kada je kriterijska varijabla bila prosjek ocjena ( $\beta = -.58, p < .01$ ). Dakle, oni pojedinci koji su na Upitniku akademske prokrastinacije postizali više rezultate, u prosjeku su imali niži prosjek ocjena na studiju. Studenti često podcjenjuju vrijeme potrebno za izvršavanje obveza i kasno započinju s njihovim izvršavanjem, a to rezultira slabijim uspjehom na kraju. Upitnik objašnjava dodatni dio varijance kada su kao kriterijske varijable uključeni percipirani stres i prosjek ocjena čime je potvrđena inkrementalna valjanost. Upitnik akademske prokrastinacije pokazao se kao značajan negativan prediktor percipiranog stresa ( $\beta = -.33, p < .05$ ) i prosjeka ocjena ( $\beta = -.58, p < .01$ ). Dakle, oni pojedinci koji su na Upitniku akademske prokrastinacije postizali više rezultate, u prosjeku su imali niži percipirani stres i niži prosjek ocjena na studiju. Međutim, rezultat na Upitniku akademske prokrastinacije nije bio značajan prediktor zadovoljstva životom.

*Ključne reči:* akademska prokrastinacija, strah od neuspjeha, percipirani stres, akademski uspjeh, zadovoljstvo životom

### Development of Academic procrastination questionnaire

The aim of this research was to construct an academic procrastination questionnaire. The research was conducted on a sample of 249 students of Josip

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Juraj Strossmayer University of Osijek (190 females and 59 males). The participants had a mean age of 22.55 (SD = 1.98, range 19 to 32 years). Factor analysis confirmed the hypothesized one-factor structure of the tested variable. The final form of Academic Procrastination Questionnaire consists of 26 items and has high reliability ( $\alpha = .95$ ). Higher score means a greater tendency toward academic procrastination. The results of the constructed Academic Procrastination Questionnaire show that there is a statistically significant difference in academic procrastination between students who failed a year in college and the ones who did not ( $t(247) = -4.81, p < .05$ ), where the students who failed a year showed a greater tendency to procrastinate. No statistically significant differences were found considering participants' gender, type of study or year of study.

In order to test the convergent validity of the Questionnaire, correlation between total scores achieved on Academic Procrastination Questionnaire and Tuckman Procrastination Scale were examined. There was a significant, high and positive correlation ( $r = .88, p < .01$ ) meaning that students with higher results on Academic Procrastination Questionnaire on average show higher results on Tuckman Procrastination Scale. To check divergent validity, correlations between total scores on Academic Procrastination Questionnaire and Fear of failure scale were analyzed. Analysis showed that there is a significant, but low correlation ( $r = .13, p < .05$ ). Also, to check incremental validity, hierarchical regression analyses were conducted, as criterion variables were grade point average (GPA), Perceived Stress Scale and Life Satisfaction Scale. Academic procrastination is shown to be the best predictor when criterion variable was GPA ( $\beta = -.58, p < .01$ ). Therefore, participants with higher scores on Academic procrastination Questionnaire on average had lower GPA. Students often underestimate the time necessary to complete their tasks and have a tendency to start doing their tasks too late, which results in low achievement. Questionnaire explains additional variance when criterion variables were perceived stress and GPA, meaning that incremental validity is confirmed. Academic Procrastination Questionnaire is shown to be a significant negative predictor of perceived stress ( $\beta = -.33, p < .05$ ) and GPA ( $\beta = -.58, p < .01$ ). Hence, the participants who achieved higher scores on Academic Procrastination Questionnaire, on average had lower perceived stress levels and lower GPA. However, results showed that total scores on academic procrastination measure were not a significant predictor variable for life satisfaction.

**Keywords:** academic procrastination, fear of failure, perceived stress, academic achievement, life satisfaction

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## Relacije ljubavnih stilova i Mračne trijade

Osnovni cilj ovog istraživanja je utvrđivanje predikcije ljubavnih stilova na osnovu dimenzija Mračne trijade (Makijavelizma, Narcizma i Psihopatije). Uzorak je činilo 201 ispitanik (100 muških i 101 ženskih), od čega je 115 bilo aktuelno u vezi ili braku. Od instrumenata primenjeni su SD3 koji meri tri dimenzije Mračne trijade i Skala ljubavnih stilova (LAS) koja meri šest ljubavnih stilova: Eros - romantična, strastvena ljubav, Storge - ljubav kao prijateljstvo, Ludus - ljubav kao igra, Agape - nesebična ljubav, Manija - posesivna ljubav i Pragma - racionalna ljubav. S obzirom na značajnu ulogu pola i statusa veze, ove karakteristike su uvedene kao prediktori ljubavnih stilova u prvom bloku, a u drugom bloku su uvedene dimenzije Mračne trijade.

Rezultati pokazuju da se stilovi Ludus, Mania i Pragma mogu značajno predvideti na osnovu dimenzija Mračne trijade povrh varijanse koju objašnjavaju pol i status veze. Pri tome, najviši procena objašnjene varijanse je ostvaren u slučaju predikcije Ludusa (26%). Ludus se može značajno predvideti na osnovu pripadnosti muškom polu ( $\beta = -.22$ ), neuključenosti u vezu/brak ( $\beta = -.16$ ), Makijavelizam ( $\beta = .15$ ) i Psihopatije ( $\beta = .21$ ). Maniu i Pragmu objašnjavaju samo dimenzije Mračne trijade, i to Maniu objašnjava Psihopatija ( $\beta = .30$ ), a Pragmu Makijavelizam ( $\beta = .25$ ) i marginalno Narcizam ( $\beta = .14$ ,  $p = .08$ ). S druge strane, Eros i Agape stil mogu se objasniti samo na osnovu aktuelne uključenosti u vezu/brak (Eros:  $\beta = .30$ , Agape:  $\beta = .28$ ). Za stil Storge nisu dobijeni značajni efekti prediktora. Dobijeni rezultati mogu doprineti objašnjenju uloge averzivih, nepoželjnih i antisocijalnih karakteristika, kakvim se smatraju dimenzije Mračne trijade, u okviru partnerske dinamike. Rezultati upućuju na to da se "mračna strana" ljubavi odnosi na nisku emotivnu uključenost u ljubavni odnos i potrebu za ljubavnim smicalicama i igrama.

Rad je delom nastao u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS #179022).

**Ključne reči:** ljubavni stilovi, Mračna trijada, pol, status veze



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## Relationship between love styles and the Dark Triad

The main aim of this research was to identify prediction of love styles based on the Dark Triad dimensions (Machiavellism, Narcissism and Psychopathy). The sample consisted of 201 participants (101 female), of which 115 were either married or in an actual romantic relationship. Applied instruments were SD3, which measures three dimensions of the Dark Triad, and Love Attitudes Scale (LAS), which measures six different love styles: Eros – romantic, passionate love; Storge – friendship love; Ludus – game-playing love; Agape – altruistic love; Mania – possessive, dependent love; and Pragma – practical love. Considering significant role of gender and relationship status, these characteristics were used as predictors of love styles in the first step, while dimensions of the Dark Triad were used in the second step of hierarchical regression analysis.

The results showed that Ludus, Mania and Pragma styles can be significantly predicted by dimensions of the Dark Triad, above variance of gender and relationship status. The highest percentage of explained variance was achieved in predicting of Ludus (26%). Ludus can be significantly predicted by male gender ( $\beta = -.22$ ), single relationship status ( $\beta = -.16$ ), Machiavellism ( $\beta = .15$ ) and Psychopathy ( $\beta = .21$ ). Mania and Pragma were predicted only by dimensions of the Dark Triad: Mania was predicted by Psychopathy ( $\beta = .30$ ), and Pragma by Machiavellism ( $\beta = .25$ ) and marginally by Narcissism ( $\beta = .14$ ,  $p = .08$ ). On the other hand, Eros and Agape can be explained only on the basis of current involvement in a romantic relationship (Eros:  $\beta = .30$ , Agape:  $\beta = .28$ ). No significant predictor effects have been found for Storge love style. The results can contribute in explanation of the role of aversive, undesirable and antisocial characteristics of the Dark Triad within the scope of romantic partner dynamic. The results imply that the “dark side” of love refers to a low level of emotional involvement in a romantic relationship and the need for manipulation and “love games”.

This study was conducted as a part of the project of the Ministry of Education, Science and Technological Development RS (#179022).

**Keywords:** love styles, the Dark Triad, gender, relationship status

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## Konstrukcija skale adaptivnog i maladaptivnog perfekcionizma

Perfekcionizam se može definirati kao multidimenzionalni konstrukt koji obuhvaća pojedinačne adaptivne i maladaptivne kognitivne, afektivne, ponašajne i socijalne sastavnice. Maladaptivni perfekcionizam obuhvaća težnju prema nepogrešivosti, postavljanje nerealno visokih ciljeva, negativne reakcije na percipirani neuspjeh te konstantno procjenjivanje i kritiziranje vlastitog ponašanja dok adaptivni obuhvaća postavljanje također visokih, ali realnih ciljeva, odgovornost, organiziranost te osjećaj zadovoljstva ostvarenim uspjehom. Cilj rada bila je konstrukcija upitnika kojim će se mjeriti dvije nezavisne adaptivne i maladaptivne dimenzije perfekcionizma pri čemu se nastojalo izbjeći preklapanje s činiteljima za koje se pretpostavlja da su povezani s razvojem različitih oblika perfekcionizma. Istraživanje je provedeno na studentima osječkog, zagrebačkog, riječkog i mostarskog sveučilišta, ekonomskog, filozofskog, građevinskog, medicinskog i pravnog fakulteta, na uzorku od 361 sudionika.

Faktorskom analizom upitnika utvrđena je šestfaktorska struktura konstrukta perfekcionizma s nadređenim adaptivnim i maladaptivnim faktorom, čija korelacija iznosi  $r = .13$  ( $p < .05$ ). Konačni oblik Skale adaptivnog i maladaptivnog perfekcionizma sadrži 35 čestica. Cronbach-alpha koeficijentom unutarnje konzistencije utvrđena je visoka pouzdanost ( $\alpha = .89$ ). Daljnja analiza uključivala je provjeru pouzdanosti nadređenih faktora pri čemu pouzdanost skale adaptivnog perfekcionizma iznosi  $\alpha = .83$ , a maladaptivnog perfekcionizma  $\alpha = .92$ . Također je utvrđena zadovoljavajuća konvergentna valjanost, dok je divergentna valjanost bila neočekivano niska.

Za utvrđivanje konvergentne valjanosti, provjeravala se povezanost Skale adaptivnog i maladaptivnog perfekcionizma (SAMP) sa Skalom pozitivnog i negativnog perfekcionizma (PNPS) pomoću Pearsonovog koeficijenta korelacije koji iznosi  $r = .65$  ( $p < .01$ ). Prilikom provjere divergentne valjanosti SAMP-a ispitana je njegova povezanost sa skalama savjesnosti i neuroticizma Petofaktorskog

upitnika ličnosti (BFI) pri čemu je korišten Pearsonov koeficijent korelacije. Dobivena korelacija između adaptivnog perfekcionizma i savjesnosti iznosi  $r = .66$  ( $p < .01$ ) na temelju čega je pretpostavljeno da se pojedini faktori adaptivnog perfekcionizma sadržajno preklapaju sa savjesnošću. Daljnjom analizom utvrđeno je da faktor odgovornost, koji je ujedno i faceta same savjesnosti, narušava divergentnu valjanost adaptivnog perfekcionizma. Maladaptivni perfekcionizam je, pak, pozitivno, umjereno i značajno povezan s neuroticizmom  $r = .56$  ( $p < .01$ ). Provjerom dijagnostičke valjanosti utvrđeno je da je subskala maladaptivnog perfekcionizma pozitivan, značajan i umjeren prediktor ispitne anksioznosti ( $r = .53$ ,  $p < .05$ ) dok je subskala adaptivnog perfekcionizma negativan, značajan i slab prediktor.

U istraživanju nisu utvrđene značajne razlike sudionika po sveučilištima i fakultetima. Također, početna pretpostavka o nezavisnosti dimenzija perfekcionizma nije utvrđena te je otvoreno pitanje prirode razlika između savjesnosti i perfekcionizma. Nalazi li se ta razlika u gradijentu ispitivanih osobina, pri čemu perfekcionizam predstavlja izraženiji i potencijalno destruktivan vid savjesnosti, ili je riječ o kvalitativno distinktivnim osobinama, treba dalje istražiti.

*Ključne reči:* perfekcionizam, adaptivni perfekcionizam, maladaptivni perfekcionizam, savjesnost, ispitna anksioznost

### Constructing an adaptive and maladaptive perfectionism scale

Perfectionism can be defined as a multidimensional construct that includes a person's adaptive and maladaptive cognitive, affective, behavioral and social components. Maladaptive perfectionism includes aspiration for flawlessness, setting unrealistically high goals, negative reaction to the perceived failure, and constantly assess and criticize their own behavior until adaptive perfectionism includes also setting high but realistic goals, responsibility, organization, and a sense of satisfaction achieved success. The aim of this study was to design a questionnaire that will assess two independent perfectionism dimensions, namely adaptive and maladaptive dimensions (the Adaptive and maladaptive perfectionism scale). An attempt was made to avoid overlapping with the factors that are assumed to be associated with the development of different forms of perfectionism. Sample consisted of 361 students studying at faculties of humanities and social sciences, faculties of civil engineering, faculties of medicine, faculties of law, faculties of economics and business at the Universities in Osijek, Zagreb, Rijeka and Mostar.

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Factor analysis revealed six factor solution with two higher-order factors - adaptive and maladaptive perfectionism, with correlation  $r = .13$  ( $p < .05$ ). The final form of the Adaptive and maladaptive perfectionism scale comprises 35 items. Cronbach's alpha coefficient indicates high reliability ( $\alpha = .89$ ). Further analysis included the verification of the reliability of superior factors wherein adaptive perfectionism is  $\alpha = .83$ , and maladaptive perfectionism  $\alpha = .92$ . Convergent validity was established; however, divergent validity was unexpectedly low.

The correlation between Adaptive and maladaptive perfectionism scale (SAMP) and a Scale of Positive and Negative Perfectionism (PNPS) was checked to determine convergent validity, using the Pearson correlation coefficient. Thereby  $r = .65$  ( $p < .01$ ). While checking divergent validity of SAMP, its connection with neuroticism and conscientiousness from Five factor personality questionnaire (BFI) was explored with Pearson correlation coefficient. Correlation between adaptive perfectionism and conscientiousness is  $r = .66$  ( $p < .01$ ). Based on that it was assumed that certain factors of adaptive perfectionism substantially overlap with conscientiousness. Further analysis showed that the factor of responsibility, which is also the facet of conscientiousness, undermines the divergent validity of adaptive perfectionism. Maladaptive perfectionism was, however, significantly and moderately associated with neuroticism,  $r = .56$  ( $p < .01$ ). In addition, assessment of diagnostic validity indicated that maladaptive perfectionism subscale is a positive, significant and moderate predictor ( $r = .53$ ,  $p < .05$ ), whereas adaptive perfectionism subscale is a negative, significant, but low predictor of test anxiety.

Students from different universities and faculties did not significantly differ on study' variables. Also, the initial hypothesis about the independence of perfectionism dimensions was not confirmed and the question about the nature of difference between conscientiousness and perfectionism remains open. That is, is the difference a result of gradient differences in studied traits, with perfectionism representing a prominent and potentially destructive aspect of conscientiousness, or are there qualitative distinctive properties. Considering the above, further research is required.

**Keywords:** perfectionism, adaptive perfectionism, maladaptive perfectionism, conscientiousness, test anxiety

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## Efekti pola i emocionalne manipulativnosti na sklonost ka kratkotrajnim/dugotrajnim intimnim vezama

Emocionalna manipulativnost predstavlja sposobnost da se utiče na tuđa osećanja i ponašanje zarad lične koristi. U intimnim vezama emocionalna manipulativnost posebno dolazi do izražaja. U ovom radu se ispituje efekat pola, taktika emocionalne manipulativnosti kao i interakcije pola i emocionalne manipulativnosti na sklonost ka kratkotrajnim odn. dugotrajnim intimnim vezama. Uzorak je činilo 423 ispitanika (208 muškog pola), starosti od 18 do 85 godina ( $AS = 31.59$ ,  $SD = 14.24$ ), pri čemu većinu čine studenti (169). Primenjene su dve skale emocionalne manipulativnosti iz Skale upravljanja emocijama drugih (MEOS) koje su najuže povezane sa ovim konstruktom – Pogoršanje raspoloženja i Neautentičnost, kao i skala Samoprocene sposobnosti emocionalne manipulacije iz pređašnje verzije skale. Sklonost kratkotrajnim odn. dugotrajnim vezama je merena preko jednoajtemske sedmostepene skale. Rezultati univarijatne analize kovarijanse pokazuju da postoji značajan negativan efekat Samoprocene sposobnosti emocionalne manipulacije na sklonost ka dugotrajnim vezama ( $F(1,404) = 7.02$ ,  $p < .01$ ). Međutim, postoji i marginalno značajna interakcija pola i ove dimenzije emocionalne manipulativnosti ( $F(1,404) = 3.71$ ,  $p = .055$ ), kao i pola i Neautentičnosti ( $F(1,404) = 4.49$ ,  $p < .05$ ). Dobijene interakcije upućuje na to da i kod muških i kod ženskih ispitanika postoji negativna povezanost dimenzija emocionalne manipulativnosti i sklonosti ka dugotrajnim vezama, ali je kod muškog pola ona nešto jače izražena u slučaju Neautentičnosti, a kod žena u slučaju Samoprocene sposobnosti emocionalne manipulacije. Dakle, kod muškaraca se sklonost ka kratkotrajnim površnim vezama povezuje sa spremnošću na lažno ispoljavanje naklonosti, laskanje, indukovanje krivice i slično, a kod žena sa doživljajem sebe kao uspešne u emocionalnoj manipulaciji.

Podaci su prikupljeni u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS (broj 179006).

*Ključne reči:* emocionalna manipulativnost, sklonost kratkotrajnim/dugotrajnim vezama, pol

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## Effects of gender and emotional manipulation on tendency towards short/long-term intimate relationships

Emotional manipulation is ability to have an effect on others people feelings and behavior for personal gain. Emotional manipulation is specially expressed in intimate relationships. The aim of this study was to explore the effects of gender, tactics of emotional manipulation and interaction between gender and emotional manipulation on tendency towards short or long-term intimate partner relationships. The sample consisted of 423 participants (208 male), aged 18 to 85 ( $M = 31.59$ ,  $SD = 14.24$ ), of which mostly were students (169). Two scales from the Managing the emotions of others scale (MEOS) was used, which are the most related to emotional manipulation construct - Worsen and Inauthentic, as well as the scale of Self-assessment capabilities of emotional manipulation from the previous version of MEOS. Tendency towards short or long-term intimate relationships was assessed by the one-item measure with seven-point scale. The results of univariate analysis of covariance showed significant negative effect of Self-assessment capabilities of emotional manipulation on tendency towards long-term relationships ( $F(1,404) = 7.02$ ,  $p < .01$ ). However, there was marginally significant interaction between gender and this dimension of emotional manipulation ( $F(1,404) = 3.71$ ,  $p = .055$ ), as well as between gender and Inauthentic dimension ( $F(1,404) = 4.49$ ,  $p < .05$ ). From the obtained interactions it can be concluded that dimensions of emotional manipulation are negative related to tendency towards long-term relationships in both male and female participants, but this relation is somewhat stronger in male participants in the case of Inauthentic and in female participants in the case of Self-assessment capabilities of emotional manipulation. Therefore, tendency to short-term relationships is related to willingness to fake expression of affection, flattery, induction of guilt etc in males, but in females this tendency is related to perception of themselves as successful in emotional manipulation.

Data were collected as a part of the project of the Ministry of Education, Science and Technological Development RS (No. 179006).

**Keywords:** emotional manipulation, tendency towards short or long-term intimate relationships, gender

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## Struktura Inventara narcističke ličnosti (NPI-40) na uzorku iz opšte populacije

Inventar narcističke ličnosti (NPI-40) predstavlja najkorišćeniju meru narcizma. Autori NPI-40, Raskin i Hol, predlažu sedmofaktorsko rešenje inventara. Međutim, drugi autori, kao npr. Emons i saradnici, predlažu četvorofaktorsko rešenje, dok npr. Kjubarić i saradnici predlaži tri. Može se zaključiti da ne postoji slaganje među istraživačima u vezi sa dimenzionalnošću ovog inventara, te je cilj ovog istraživanja bio validacija NPI-40 na uzorku iz domaće opšte populacije. Uzorak je činilo 423 ispitanika (208 muških), starosti od 18 do 85 godina ( $AS = 31.59$ ,  $SD = 14.24$ ), od čega je bilo 40% studenata. Na osnovu paralelne analize je bilo moguće zadržati tri faktora. Eksplorativnom faktorskom analizom (metod glavnih osa) je ekstrahovano tri faktora koja objašnjavaju 46.43% zajedničke varijanse. Nad zadržanim faktorima je primenjena kosougla Promax rotacija i na osnovu matrice sklopa izvršena interpretacija faktora. Prvi faktor okuplja ajteme koji se odnose na generalnu tendenciju da se utiče na druge ljude (ovaj faktor obuhvata ajteme kao što su: "Lako manipulišem drugima", "Imam urođeni talenat da utičem na druge", "Rođeni sam vođa") i imenovan je kao Moć. Drugi faktor se odnosi na zadovoljstvo sopstvenim telom i uživanjem u gledanju sopstvenog tela (obuhvata ajteme kao što su: "Volim da se gledam u ogledalu", "Volim da gledam svoje telo", "Volim da se pravim važan zbog svog tela" itd.) i imenovan je kao Egzibicionizam. Treći faktor okuplja ajteme koji ukazuju na verovanje u sopstvene sposobnosti (i on obuhvata ajteme kao što su: "Biću sjajna osoba", "Retko zavisim od drugih ljudi kada nešto treba da obavim", "Pun sam samopouzdanja", "Sebe vidim kao dobrog vođu", itd.) i imenovan je kao Posebna osoba. Dobijeni rezultati ne idu u prilog originalnoj pretpostavci o strukturi inventara, ali idu u prilog rezultatima Kjubarića i saradnika, s tim što postoje izvesne razlike u strukturi trećeg faktora ali koje ne narušavaju konstrukt validnost ovog faktora. Korelacije između faktora su visoke i iznose preko .60, što ukazuje na koherentnost prostora merenja ovog inventara.

Podaci su prikupljeni u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS (broj 179006).

**Ključne reči:** Inventar narcističke ličnosti NPI-40, narcizam, faktorska struktura, validnost

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## The structure of the Narcissistic Personality Inventory (NPI-40) in a sample from general population

Narcissistic Personality Inventory (NPI-40) is the most used measure of narcissism. The authors of NPI-40, Ruskina and Hall, proposed seven-factor solution of the inventory. Therefore, the other authors, such as Emons et al., proposed four-factor solution, while Kubarych et al. proposed three-factor. It can be concluded that there is a disagreement about dimensionality of this inventory, and therefore the aim of this research was to validate NPI-40 in a sample from general population in Serbia. Sample included 423 participants (208 male), aged from 18 to 85 ( $M = 31.59$ ,  $SD = 14.24$ ), of which 40% were university students. Based on parallel analysis, three factors can be kept. Using exploratory factor analysis (principal axis method) three factors were extracted, which explained 45.43% of common variance. Promax rotation was used and factors were interpreted relative to pattern matrix. The first factor gathers items that points to general tendency to influence other people and manipulate them (this factor consists of items like: "I find it easy to manipulate people", "I have a natural talent for influencing people", "I am a born leader"). This factor was named - Power. The second factor refers to feeling of gratification with your own body and feeling pleasure while watching your own body (this factor consists of items such as: "I like to look at myself in the mirror", "I like to look at my body", "I like to show off my body") and it was named - Exhibitionism. The third factor gathers items that points to believing in your own special abilities (this factor consists of items such as: "I am going to be a great person", "I rarely depend on anyone else to get things done", "I see myself as a good leader"). This factor is named -Special person. Our results do not support originally proposed structure of the inventory, but support the results of Kubarych et al., although there were some differences in structure of the third factor but they do not violate construct validity of it. Correlations between factors were high and above .60, that indicates on coherence of dimensions of narcissism construct.

Data were collected as a part of the project of the Ministry of Education, Science and Technological Development RS (No. 179006).

**Keywords:** Narcissistic personality inventory NPI-40, narcissism, factor structure, validity

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## Konstrukcija upitnika Zavist u akademskom okruženju

Zavist je sveprisutni dio suvremenog života, međutim, unatoč velikom interesu istraživača, upitnici kojima se mjeri zavist u akademskom okruženju gotovo su nepostojeći. Stoga je cilj istraživanja bio konstruirati takav upitnik. Istraživanje je provedeno na uzorku od 296 studenata od 18 do 25 godina, od kojih je 65.54% ženskog i 34.46% muškog spola. Sudionici su ispitani putem internetskog obrasca tehnikom snježne grude. Dali su svoje demografske podatke, a potom su redom ispunjavali novokonstruirani upitnik, Upitnik dispozicijske zavisti, Upitnik socijalne usporedbe, Coopersmithov upitnik samopoštovanja, modificiranu subskalu motivacije za postignućem i Marlowe-Crowneovu skalu socijalne poželjnosti.

Na dobivenim je podacima provedena eksploratorna faktorska analiza i provjerena pouzdanost. Utvrđeno je da se upitnik sastoji od dva faktora. Prvi je faktor nazvan Situacijska zavist i sastoji se od 21 čestice ( $\alpha = .887$ ), dok je drugi faktor nazvan Dispozicije za zavist i sastoji se od 12 čestica ( $\alpha = .773$ ). Pouzdanost cijelog upitnika iznosi  $\alpha = .893$ . Povezanost među faktorima je  $.44$ ,  $p < .01$ , dok je povezanost prvog faktora i cijelog upitnika  $.94$ ,  $p < .01$ , te drugog faktora i cijelog upitnika  $.72$ ,  $p < .01$ .

Hijerarhijskom regresijskom analizom ispitana je valjanost upitnika. Kako bi se provjerila konvergentna valjanost korišten je Upitnik dispozicijske zavisti. Pri tome je utvrđena pozitivna, visoka povezanost dvaju upitnika, što ukazuje na vrlo dobru konvergentnu valjanost ( $r = .64$ ,  $p < .01$ ). Za provjeru divergentne valjanosti korištena je skala socijalne usporedbe Iowa-Netherlands Comparison Orientation Scale te je utvrđena značajna, ali umjerena povezanost, što upućuje na nešto slabiju divergentnu valjanost ovog upitnika ( $r = .52$ ,  $p < .01$ ). Za ispitivanje dijagnostičke valjanosti upitnika korišteni su konstrukti samopoštovanja i motivacije za postignućem. Rezultati su pokazali da novokonstruirani upitnik objašnjava sveukupno 30.50% varijance samopoštovanja ( $R^2 = .305$ ,  $F(1,294) = 128.911$ ,  $p < .01$ ) te je, samim time, značajan prediktor samopoštovanja ( $\beta = .552$ ,  $p < .01$ ). S druge strane, pokazalo se da upitnik ne objašnjava značajan dio varijance motivacije za postignućem.

Općenito govoreći, novokonstruirani upitnik odlikuju dobre metrijske karakteristike, visoka pouzdanost i dobra konvergentna valjanost, a ujedno se pokazao i kao prediktor samopoštovanja. Treba naglasiti da je najveći doprinos upitnika taj što dosad nije konstruiran upitnik koji bi mjerio isključivo zavist u akademskom kontekstu. Nedostaci u ovom istraživanju su veći broj ženskih ispitanika u odnosu na muške te različit omjer ispitanika po dobi i godini studija. Ipak, upitnik ima potencijala za praktičnu primjenu na fakultetima. Primjerice, mogao bi se koristiti za usporedbu generacija, za ispitivanje razlika u zavisti između više i manje prestižnih fakulteta, ali i kao prediktor odustajanja od studiranja. Konačno, ovaj upitnik ostavlja prostora i za buduća istraživanja.

*Ključne reči:* konstrukcija upitnika, zavist, akademsko okruženje

### Construction and Validation of Envy in academic setting questionnaire

Envy is an ubiquitous part of modern society. However, these kinds of questionnaires are almost nonexistent. We developed the Envy in academic setting questionnaire, as the first questionnaire that attempted to examine this phenomenon. Validity of the questionnaire was tested on a sample of 296 students aged between 18 and 25 years, of which 65.54% female and 34.46% male. Participants were examined via the internet form. First, they were asked to give their demographic data. After that, they fill in the questionnaire in this exact order: newly designed questionnaire, Dispositional Envy Scale, Iowa-Netherlands Comparison Orientation Scale, Coopersmith Self-esteem Scale, modified subscale of achievement motivation and Marlowe-Crowne Social Desirability Scale.

The structure of the questionnaire, as well as the reliability was checked. Exploratory factor analysis showed that the questionnaire consists of two factors. The first factor is named Situational envy and consists of 21 items ( $\alpha = .887$ ), while the second factor is named the Envy disposition and consists of 12 items ( $\alpha = .773$ ). Reliability of the entire questionnaire was high at  $\alpha = .893$ . Pearson correlation between both factors is  $.44$ ,  $p < .01$ , while the correlation between first factor and entire questionnaire is  $.94$ ,  $p < .01$  and second factor and entire questionnaire  $.072$ ,  $p < .01$ .

Hierarchical regression analysis was used to check the validity of questionnaire. To verify the convergent validity of the questionnaire we used the Dispositional Envy Scale. The results show statistically significant correlation between the two questionnaires indicating a very good convergent validity ( $r = .64$ ,  $p < .01$ ). To check

the divergent validity we used the Iowa-Netherlands Comparison Orientation Scale and the results show that the relationship is significant and moderate, suggesting somewhat less divergent validity of this questionnaire ( $r = .52, p < .01$ ). To check the criterion validity we used that Coopersmith Self-Esteem scale and achievement motivation subscale. Accordingly, newly designed questionnaire is a significant predictor of self-esteem ( $\beta = .552, p < .01$ ). At the same time, it does not explain achievement motivation.

The questionnaire has good metrical characteristics, high reliability, good convergent validity, and is proven to be a significant predictor of low self-esteem. The largest contribution of this questionnaire is that yet no questionnaire has been constructed that can measure exclusively envy in an academic setting. Shortcomings in this study are significantly higher number of females compared to men, different proportion of respondents by age and the year of study. Despite of that, this questionnaire can be applied in universities to test envy differences between prestigious and less prestigious universities, but also as a predictor of the study withdrawal. The findings provide direct implications for future researches.

Keywords: questionnaire construction, envy, academic setting

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## Usamljenost i virtuelno ponašanje kod studenata

Cilj ovog istraživanja je ispitivanje povezanosti različitih dimenzija usamljenosti i ponašanja u društvenim mrežama. Uzorak obuhvata 120 studenata, 39 muškog i 81 ženskog pola, starosti od 19 do 31 godine ( $M = 24.25; SD = 2.49$ ). Za procenu socijalne i emocionalne usamljenosti upotrebljena je Skala socijalne i emocionalne usamljenosti a za procenu ponašanja u društvenim mrežama koristili smo VPDM – upitnik. Relacije između ovih dimenzija ispitane su primenom višestruke regresione analize, u kojoj su kriterijum bili skorovi na dimenzijama ponašanja na društvenim mrežama a prediktori skorovi na dimenzijama usamljenosti. Rezultati ukazuju na značajnu povezanost usamljenosti i otuđivanja putem društvenih mreža ( $R = .36, p < .01$ ), pri čemu su značajni prediktori sledeće dimezije: socijalna usamljenost ( $\beta =$

.22;  $p < .01$ ) i porodična usamljenost ( $\beta = .20$ ;  $p < .05$ ). Sa porastom vremena provedenog na društvenim mrežama raste i zavisnost od društvenih mreža ( $r = .43$ ;  $p < .01$ ), negativan stav prema društvenim mrežama ( $r = .37$ ;  $p < .01$ ), i pažnja koja se posvećuje virtuelnom selfu ( $r = .28$ ;  $p < .01$ ). Rezultati ovog istraživanja su pokazali da studenti koji su usamljeniji više koriste negativne aspekte društvenih mreža ali ih i češće koriste za uspostavljanje socijalnih kontakata koji im nedostaju u offline okruženju što je u skladu sa teorijom socijalne kompenzacije. Ovakvi rezultati ukazuju da uprkos široko rasprostranjenom verovanju o negativnom uticaju društvenih mreža one mogu imati i pozitivan uticaj na kvalitet života. U ovom istraživanju nisu dobijeni rezultati koji bi išli u prilog teoriji “rich get richer” iako ove dve teorije nisu međusobno isključive.

*Ključne reči:* usamljenost, društvene mreže, zavisnost, otuđivanje

### Student loneliness and virtual behavior

The purpose of this research is examining connection of different dimensions of loneliness and behavior in social networks. The sample includes 120 students, 39 male and 81 female, ages between 19 and 31 ( $M = 24.25$ ;  $SD = 2.49$ ). For the assessment of social and emotional loneliness the Scale of social and emotional loneliness was used and for the assessment of behavior in social network VPDM questionnaire was used. Relation between these dimensions were tested using multiple regression analysis, in which dependent variables were scores on virtual behavior dimensions and independent variables were scores on loneliness dimensions. The results obtained point to connections between loneliness dimensions and alienation ( $R = .36$ ,  $p < .01$ ). Significant predictors are social loneliness ( $\beta = .22$ ;  $p < .01$ ) and family loneliness ( $\beta = .20$ ;  $p < .05$ ). With increased time spent on social networks, the addiction on social networks is growing ( $r = .43$ ;  $p < .01$ ), negative attitude towards social networks ( $r = .37$ ;  $p < .01$ ), and attention dedicated to virtual self ( $r = .28$ ;  $p < .01$ ). The result of this study showed that lonely students are more likely to use negative aspects of social networks but also that they are using them to make social contacts that they are missing in everyday offline life. These results are in compliance with social compensation theory, and show us that social networks can positively contribute to quality of social life despite a widespread opinion. Results obtained in this study did not support theory rich get richer, although one theory does not exclude the other.

*Keywords:* loneliness, social networks, addiction, alienation

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## Efekti pola i narcizma na sklonost ka kratkotrajnim/dugotrajnim intimnim vezama

Narcizam se povezuje s lošim interpersonalnim funkcionisanjem, uključujući i intimne odnose sa partnerom. U prethodnim istraživanjima je pokazano da je narcizam povezan s neverstvom, tendencijom “igranja ljubavnih igara”, većom učestalošću flertovanja i slično, te se može očekivati da je povezan sa strategijom ostvarivanja kratkotrajnih naspram dugotrajnih veza. Osnovni cilj istraživanja bio je ispitivanje efekta pola, dimenzija narcizma i njihove interakcije na sklonost dugotrajnim, odnosno kratkotrajnim vezama. Uzorak je činilo 422 ispitanika, od čega su 208 (49.2%) muškog pola. Starost ispitanika kretala se u rasponu od 18 do 85 godina, sa prosečnom vrednošću 31.59 (SD = 14.24). Efekti su ispitani primenom univarijatne analize kovarijanse, u kojoj je kategorijalni prediktor bio pol, kontinuirani prediktori su bili skorovi na dimenzijama vulnerabilnog i grandioznog narcizma inventara FFNI, a kriterijum je bila sklonost ka dugotrajnim odnosno kratkotrajnim vezama, izražena na sedmostepenoj skali. Značajan efekat ostvario je grandiozni narcizam ( $\eta^2 = .05$ ), u smeru u kojem osobe s višim grandioznim narcizmom češće ostvaruju kratkotrajne veze ( $r = -.26, p < .01$ ). Takođe, značajna je bila i interakcija vulnerabilnog narcizma i pola ( $\eta^2 = .01$ ). Ova interakcija upućuje na to da su muškarci koje karakteriše vulnerabilni narcizam više skloni kratkotrajnim vezama ( $r = -.24, p < .01$ ), dok kod žena nema značajne povezanosti vulnerabilnog narcizma i sklonosti dugotrajnim vezama ( $r = .00, p > .05$ ). Ovaj rezultat se može objasniti u kontekstu rodne uloge u našem društvu. Naime, muškarci pod socijalnim pritiskom teže da održe sliku o sebi u skladu sa rodnom ulogom koja podrazumeva snažnog, čvrstog, stabilnog, samopouzdanog i nezavisnog muškarca. Međutim, čini se da muškarci koje karakteriše viši vulnerabilni narcizam, tj. koji su hipersenzitivni, ranjivi i anksiozni, ostvarivanjem kratkotrajnih veza mogu da održe tj. nadomeste poželjnu sliku o sebi kao o “mačo” muškarcu. Takođe, u kratkotrajnim vezama oni ne ostavljaju partneru dovoljno vremena za upoznavanje i sagledavanje njihove ranjive prirode, što bi bio rizik ukoliko se upuste u dugotrajnu vezu. Može se zaključiti da izbegavanje dugotrajnih

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veza kod muškaraca koje odlikuje vulnerabilni narcizam, predstavlja jednu od strategija za čuvanje pozitivne slike o sebi.

Podaci su prikupljeni u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS (broj 179006).

*Ključne reči:* vulnerabilni narcizam, grandiozni narcizam, sklonost dugotrajnim/kratkotrajnim vezama, pol

### The effects of gender and narcissism on tendency towards short-term/long-term relationships

Narcissism is associated with bad interpersonal functioning, including intimate relationships with a partner. Previous researches had shown that narcissism is associated with infidelity, the tendency towards "playing love games" and also with higher frequency of flirting and similar things, which is why it can be expected for narcissism to be associated with the strategy of achieving short-term instead of long-term relationships. The aim of the research was to explore the effects of gender, narcissism's dimensions and their interactions on tendency towards long-term or short-term intimate relationships. The sample consisted of 422 participants, 208 (49.2%) were males. The age of participants ranged from 18 to 85 years, with an average value of 31.59 (SD = 14.24). Univariate analysis of covariance was used, in which categorical predictor was gender, continuous predictors were scores on vulnerable and grandiose narcissism from the FFNI, and criterion was the tendency towards long-term or short-term relationships, measured by a seven-point scale. Results showed that the grandiose narcissism had a significant effect ( $\eta^2 = .05$ ) indicating that persons with higher grandiose narcissism had tendency towards short-term relationships ( $r = -.26$ ,  $p < .01$ ). The interaction between vulnerable narcissism and gender was also significant ( $\eta^2 = .01$ ). This interaction indicates that men, who are characterized by the higher vulnerable narcissism, are more prone to short-term relationships ( $r = -.24$ ,  $p < .01$ ), while for women there is no significant correlation between the vulnerable narcissism and preferences towards long-term relationships ( $r = .00$ ,  $p > .05$ ). These results can be explained by the gender role in our society. Namely, men under social pressure tend to perpetuate the image of themselves in accordance with the gender role of men, which implies a strong, solid, stable, confident and independent man. However, it seems that men who are characterized by higher vulnerable narcissism, those who are hypersensitive, vulnerable and anxious, can compensate and sustain the

desirable image of themselves as "macho" men by getting involved in short-term relationships. Also, men in short-term relationships do not give their partners enough time for exploring and understanding their vulnerable nature, and that would be risky for them in case they engage in a long-term relationship. It can be concluded that one of the strategies for keeping a positive self-image (for those men who are characterized by vulnerable narcissism) can be achieved by avoiding long-term relationships.

Data were collected as a part of the project of the Ministry of Education, Science and Technological Development RS (No. 179006).

*Keywords:* grandiose narcissism, vulnerable narcissism, tendency towards long-term/short-term relationships, gender

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## Efekti pola i osobina ličnosti prema HEXACO modelu na emocionalnu manipulativnost

Emocionalna manipulacija se odnosi na sposobnost da se utiče na tuđa osećanja i ponašanja zarad neke sopstvene koristi. Kao takva, ona se povezuje sa „mračnom stranom“ emocionalne inteligencije tj. njene dimenzije koja se odnosi na upravljanje emocijama. S obzirom na to, postavlja se pitanje kako je povezana s „mračnom stranom“ ličnosti. Kao referentni model za ispitivanje relacija sa osobinama ličnosti je izabran HEXACO model. Budući da je šesta dimenzija ovog modela - Poštenje, tj. njen negativan pol, najviše povezan sa socijalno averzivnim tendencijama koje se opisuju „mračnu“ stranu ličnosti. Dakle, cilj ovog istraživanja bio je utvrđivanje relacija između pola i osobina ličnosti s jedne strane, i taktika emocionalne manipulativnosti s druge. Uzorak se sastojao od 420 ispitanika, pretežno studenata (208 muškog pola), starosti od 18 do 85 godina ( $AS = 31.59$ ,  $SD = 14.24$ ). Za procenu osobina ličnosti primenjena je kraća forma HEXACO-PI-R-a, a za procenu emocionalne manipulativnosti korišćene su dve skale - Pogoršanje raspoloženja i Neautentičnost iz Skale upravljanja emocijama drugih (MEOS), kao i skala iz pređašnje verzije MEOS-a – Samoprocena sposobnosti emocionalne

manipulacije. Rezultati multivarijatne analize kovarijanse pokazali su da osobine Poštenje, Emocionalnost, Ekstraverzija i Prijatnost ostvaruju značajan multivarijatni efekat na dimenzije emocionalne manipulativnosti, dok efekat pola nije bilo značajan. Pri tome, Poštenje ostvaruje upadljivo veći efekat u odnosu na ostale osobine ( $\eta^2 = .21$ ). Pogledom na univarijatne efekte, dobijeno je da Poštenje ( $\eta^2$  se kreće od .10 do .17) i Prijatnost ( $\eta^2$  se kreće od .02 do .04) ostvaruju značajne efekte na sve tri dimenzije emocionalne manipulativnosti, pri čemu je njihov parcijalni doprinos negativan. Dakle, karakteristike ličnosti koje se odnose na nisku moralnost, agresivnost, bes i hostilnu orijentaciju prema drugima su ključni prediktori emocionalne manipulativnosti iz domena ličnosti. S druge strane, Ekstraverzija ostvaruje značajan efekat na Pogoršanje raspoloženja ( $\eta^2 = .02$ ) i Samoprocenu sposobnosti emocionalne manipualcije ( $\eta^2 = .03$ ), a Emocionalnost samo na Neautentičnost ( $\eta^2 = .02$ ), pri čemu su parcijalni doprinosi ovih osobina pozitivni. Ovaj rezultat ukazuje na to da se doživljaj sebe kao uspešnog manipulatora i taktike manipulacije koje uključuju ispoljavanje besa, upućivanje kritika i negativnih komentara u cilju narušavanja nečijeg raspoloženja i samopoštovanja, povezuju s pozitivinom ili čak superiornom slikom o sebi. S druge strane, taktike koje se odnose na suptilniju i više prikrivenu manipulaciju koja je u vezi s neautentičnom finoćom i empatijom, kao i indukovanjem krivice u cilju zadobijanja pažnje od drugih, povezuju se s emocionalnom osetljivošću i zavisnošću od drugih ljudi.

Podaci su prikupljeni u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS (ON179006).

*Ključne reči:* emocionalna manipulativnost, HEXACO, MEOS

## Effects of gender and HEXACO personality traits on emotional manipulation

Emotional manipulation refers to the ability to influence other people's feelings and behaviors for the sake their own benefit. As such, it is associated with the "dark side" of emotional intelligence i.e. its dimensions, which refers to the emotion management. Given that, the question is how it is linked to the 'dark side' of personality. As a reference model for studying the relations with personality traits was HEXACO model. Since this is the sixth dimension of this model - honesty, i.e. its negative pole, is the most associated with aversive social tendencies that describe the 'dark' side of the personality. The main aim of this research was to



explore relations between gender and personality traits on the one hand, and emotional manipulation tactics on the other. The sample included 420 participants, mostly students (208 male), ages between 18 – 85 ( $AS = 31.59$ ,  $SD = 14.24$ ). The short form of HEXACO-PI-R was used for measuring personality traits, and for measuring emotional manipulation tactics two scales from Managing the emotions of others scale (MEOS) were used – Mood worsening and Inauthentic, as well as the scale from the previous version of MEOS – Perceived ability of emotional manipulation. The multivariate analysis of covariance showed that traits Honesty-Humility, Emotionality, Extraversion and Agreeableness have significant multivariate effect on emotional manipulation tactics, while gender effect was not significant. Thereby, Honesty-Humility had markedly higher effect compared to other traits ( $\eta^2 = .21$ ). Honesty-Humility ( $\eta^2$  in range from .10 to .17) and Agreeableness ( $\eta^2$  in range from .02 to .04) have effects on all three dimensions of emotional manipulation. The partial contributions of those personality traits are negative which suggest that characteristics such as low morality, aggressiveness, anger and hostility towards others are key characteristics of the tendency toward emotional manipulation in the domain of personality. On the other hand, Extraversion has a significant effect on Mood worsening ( $\eta^2 = .02$ ) and Perceived ability of emotional manipulation ( $\eta^2 = .03$ ). Emotionality impacts only the Inauthentic dimension ( $\eta^2 = .02$ ). The partial effects of these traits are all positive. These results showed that the perception of the self as a successful manipulator and emotional manipulation tactics which include displaying anger, use of criticism and negative comments in order to undermine somebody's mood and confidence are associated with positive or even superior self-image. On the other hand, subtler tactics of manipulation which are associated with inauthentic empathy and guilt induction in order to obtain the attention of others are connected with emotional sensitivity and dependence on others.

Data were collected as a part of the project of the Ministry of Education, Science and Technological Development RS (No. 179006).

Keywords: emotional manipulation, HEXACO, MEOS

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## Povezanost između stilova ljubavi i šema doživljaja seksualnog iskustva

Lijeva tipologija ljubavi podrazumeva šest tipova ljubavi: Eros – strastvena ljubav, Mania – opsesivna ljubav, Ludus – ljubav kao igra, Storge – prijateljska ljubav, Agape – nesebična ljubav i Pragma – pragmatična ljubav. Lijeva tipologija zaslužuje pažnju kako zbog teorijske utemeljenosti, tako i zbog velikog uticaja na brojna psihološka istraživanja. Šeme doživljaja seksualnog iskustva se odnose na različite orijentacije u pogledu seksualnog iskustva, pa tako imamo: Heteroseksualno iskustvo orijentisano na romantičnu vezu sa partnerom, Heteroseksualno iskustvo orijentisano na brigu i Heteroseksualno iskustvo orijentisano na sopstveno zadovoljstvo. Instrumenti koji su korišćeni prilikom ovog istraživanja su: Skala ljubavnih stavova (LAS- Love Attitudes Scale: Hendrick & Hendrick, 1990) i Skala za procenjivanje heteroseksualnih iskustava (EHIS - Experience of heterosexual intercourse scale: Birnbaum, 2002). Uzorak je prigodni, čine ga 170 ispitanika opšte populacije, različitog pola, uzrasta i partnerskog statusa. Ukupno je bilo 127 ženskih i 43 muških ispitanika, prosečne starosti 22 godine. Od svih ispitanika 98 se izjasnilo da nije u ljubavnoj vezi dok se 72 ispitanika izjasnilo da je u ljubavnoj vezi. U radu se istraživala povezanost stilova ljubavi i šema doživljaja seksualnog iskustva tj. da li ispitanici koji pripadaju određenom stilu ljubavi razvijaju drugačije šeme doživljaja seksualnog iskustva. Takođe se istraživala povezanost stilova ljubavi i šema doživljaja seksualnog iskustva u zavisnosti od pola i statusa ljubavne veze. Rezultati istraživanja potvrdili su opštu hipotezu, tj. da postoji povezanost varijabli stilova ljubavi i šema doživljaja seksualnog iskustva (Spirman  $\rho = .375$ ,  $p < .01$ ), kao i određene specifične hipoteze, da osobe koje pripadaju Eros stilu ljubavi razvijaju šemu seksualne orijentacije fokusiranu na romantičnu vezu sa partnerom (Spirman  $\rho = .408$ ,  $p < .01$ ), a osobe koje pripadaju Mania stilu ljubavi formiraju šemu seksualne orijentacije fokusiranu na brigu (Spirman  $\rho = .296$ ,  $p < .01$ ), da je stil ljubavi Ludus u negativnoj korelaciji sa šemom seksualne orijentacije fokusirane na romantičnu vezu sa partnerom (Spirman  $\rho = -.195$ ,  $p < .01$ ), a stil ljubavi Eros u negativnoj korelaciji sa šemom seksualne orijentacije fokusirane na brigu (Spirman

$\rho = -.280, p < .01$ ). Takođe, dobijeno je da postoji statistički značajna korelacija između skale za procenu stilova ljubavi i njenih subskala, kao i statistički značajna korelacija između skale za procenjivanje heteroseksualnih iskustava i njenih subskala, i na kraju, da postoji statistički značajna razlika između polova i stilova ljubavi na subskali Ludus i to u korist muškaraca ( $p = .006$ , AS Muškarci = 103.38, Žene = 79.44).

*Ključne reči:* stilovi ljubavi, šema doživljaja seksualnog iskustva, pol, status ljubavne veze

### The interconnectedness between the love styles and the schemes of sexual experience

Lee's love typology consists of six types of love: Eros – passionate love, Mania – obsessive, frenzied love, Ludus – game playing, playful love, Storge – friendly love, Agape – selfless, altruistic love, and Pragma – practical, non-emotional love. Lee's typology merits attention not only for its theoretical soundness and foundation, but also for its immense impact on numerous psychological researches. The schemes of sexual experiences can be applied to different orientations in regards to sexual experiences, leading to the following: Heterosexual experience oriented toward the romantic relationship with the partner, Heterosexual experience oriented toward care and Heterosexual experience oriented toward self-satisfaction. Instruments used in this research are: Love Attitudes Scale (LAS - Love Attitudes Scale: Hendrick & Hendrick, 1990), and Experience of heterosexual intercourse scale (EHIS - Experience of heterosexualintercourse scale: Birnbaum, 2002). The sample used in this research is appropriate, as it consists of 170 examinees of general population, different genders, ages and relationship status. The average age of 127 female and 43 male examinees was 22. Out of the total number of examinees, 98 of them declared they were not in a relationship, while the remaining 72 declared they were in a relationship. The focus of this research was the interconnectedness between the love styles and the schemes of sexual experiences, that is whether examinees which belong to a certain love style develop specific schemes of sexual experiences and in which way do they differ from other examinees who belong to different love styles. In addition to this, the focus of the research was the interconnectedness between the love styles and the schemes of sexual experiences in regards to the gender and relationship status of examinees. The results have confirmed the general hypothesis that there is the interconnectedness between variables of the love styles and the schemes of sexual

experiences (Spearman  $\rho = .375$ ,  $p < .01$ ), as well as other specific hypotheses, according to which persons who belong to the Eros love style develop their schemes of sexual experiences oriented toward the romantic relationship with the partner (Spearman  $\rho = .408$ ,  $p < .01$ ), while those who belong to the Mania love style form the scheme of sexual experience oriented toward care (Spearman  $\rho = .296$ ,  $p < .01$ ). In the same lines, it has been confirmed that the Ludus love style is in negative correlation with the scheme of sexual experience oriented toward the romantic relationship with the partner (Spearman  $\rho = -.195$ ,  $p < .01$ ), as well as that the Eros love style is in negative correlation with the scheme of sexual experience oriented toward care (Spearman  $\rho = -.280$ ,  $p < .01$ ). Furthermore, it seems that there is a statistically important correlation between the scale for evaluation of the love styles and its subscales. Finally, it is highly probable that there is a statistically important difference between genders and love styles on the Ludus subscale, in favor of male examinees ( $p = .006$ , AS Male = 103.38, Female = 79.44).

*Keywords:* love styles, the schemes of sexual experiences, gender, love relationship status

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### Poremećaji hranjenja i internet

Istraživanja pokazala da Pro-anorexia websites nude sadržaje koji promovišu upotrebu lijekova za mršavljenje, pružaju štetne savjete o načinima postizanja i održavanja vrlo niske tjelesne težine (Fox, Ward, & O'Rourke, 2005). Mlada osoba nezadovoljna svojim tijelom i niskog samopoštovanja postaje na internetu „neko drugi“, na stranicama pro-anorexia/bulimija pronalazi grupu istomišljenika s kojima se povezuje, oblikuje svoje ili prihvata tuđe stavove, uz to dobija direktno potkrepljenje (Mileham, 2004). Ovakve stranice postoje i na srpskom jeziku, zanimalo nas je ispitati kakvi su sadržaji koji se na njima nude i koja su obilježja osoba koje ih koriste. U radu uključene analize internetskih članaka objavljene na blogu čiji se sadržaj odnosio na podupiranje anoreksije, bulimije i uopšteno poremećaja hranjenja. Kao jedinica analize uzeti postovi u pojedinom blogu

objavljeni od 2011. do 2013. godine. Kriterij za blog bili su dužina postova, vremenski period njihovog objavljivanja, posjećenost blogova.

Obrada rezultata napravljena sumarno za sve blogove, i pojedinačno za svaki od njih. Rezultati izraženi u broju učestalosti, pojavljivanja obilježja/kategorije. Pojedini analizirani post mogao istovremeno biti svrstan u nekoliko klasifikacijskih kategorija unutar kriterija. Provedene analize pokazale da su korisnici adolescentne djevojke. Sadržaji o kojima raspravljaju su prejedanje, dijeta, povraćanje, vježbanje i zloupotreba lijekova. Često se daju i traže savjeti, te pruža socijalna podrška u cilju gubitka i održavanja niske tjelesne težine. Negativne emocije zastupljenije nego pozitivne. Analizirani elektronski dnevnicu sadrže slike i pjesme, čiji je cilj ojačati motivaciju i ponašanja usmjerena ka postizanju ideala mršavosti.

Proučavanje ovih stranica važno zbog otkrivanja i praćenja odstupajućih oblika ponašanja koje opisuju korisnici i uvida u osnovne mehanizme koji održavaju i šire ideologiju mršavosti po svaku cijenu. Krajnji cilj izrada plana aktivnosti i preventivnih mjera (zakonska zabrana objavljivanja ovakvih stranica, uklanjanje sa servera, povećanja broja anti-pro-ana stranica) u cilju zaštite tjelesnoga i mentalnog zdravlja adolescenata.

*Ključne reči:* poremećaji hranjenja, web stranica, analiza sadržaja, elektronski dnevnik-blog, internetski članak-post

## Eating disorder and Internet

Research has shown that pro-anorexia websites offer content that promote the use of drugs for weight loss, harmful provide advice on ways to achieve and maintain a very low body weight (Fox, Ward, and O'Rourke, 2005). Young people dissatisfied with their body and low self-esteem on the Internet becomes "someone else", the site of pro-anorexia/bulimia finds a like-minded group to which you connect, formed his or accept other people's opinions, it gets directly to the reinforcement (Mileham, 2004). These sites are in the Serbian language, we wanted to examine what are the facilities that they offer and what are the characteristics of people who use them. The work included analysis of Internet articles published on the blog whose content is related to the support of anorexia, bulimia and eating disorders in general. As the unit of analysis to take posts in a particular blog published from 2011 to 2013. Criteria were length blog posts, the period of inclusion, attendance blogs. Processing of the results made a summary of all blogs, and individually for each of them. Results are expressed in number of

frequency of appearance attributes/categories. Some analyzed post could also be classified into several categories within the classification criteria.

Analyses show that users are adolescent girls. The topics discussed are overeating, dieting, vomiting, exercise and abuse of drugs. Often give and seek advice, and provides social support in order to losing and maintaining a low body weight. Negative emotions prevalent than positive. Analyzed electronic diaries contain images and poems, which aims to strengthen the motivation and behavior directed toward achieving the ideal of thinness.

The study of these important sites for detection and monitoring of diverging behaviors that describe users and insight into the basic mechanisms that maintain and spread the ideology of thinness at all costs. The ultimate aim of the activities and preventive measures (legal ban on the publication of these pages, remove from the server, increasing the number of anti-pro-ana sites) in order to protect the physical and mental health of adolescents.

*Keywords:* eating disorders, websites, content analysis, electronic diary-blog, post-internet article

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Efekti pola, starosti i narcizma u objašnjenju emocionalne manipulativnosti

Cilj ovog istraživanja je ispitivanje povezanosti socio-demografskih karakteristika (pol i starost) i dve dimenzije narcizma (grandiozni i vulnerabilni) sa taktikama emocionalne manipulativnosti. Uzorak je činilo 423 ispitanika (208 muških), starosti od 18 do 85 godina ( $AS = 31.59$ ,  $SD = 14.24$ ), od čega je bilo 40% studenata. Primenjene su dve skale emocionalne manipulativnosti iz Skale upravljanja emocijama drugih (MEOS) koje su najuže povezane sa ovim konstruktom – Pogoršanje raspoloženja i Neautentičnost, kao i skala Samoprocene sposobnosti emocionalne manipulacije iz pređašnje verzije skale. Pored toga, primenjen je i Petofaktorski inventar narcizma (FFNI) koji meri dve dimenzije narcizma – grandiozni i vulnerabilni.

Primenjena je multivarijatna analiza kovarijance pri kojoj je kategorijalni prediktor pol, a kontinuirani - starost i skorovi na dvema dimenzijama narcizma, dok su kriterijumi bili skorovi na trima skalama emocionalne manipulativnosti. Rezultati pokazuju da značajne multivarijatne efekte na emocionalnu manipulativnost ostvaruju samo dve dimenzije narcizma (grandiozni:  $F(3,407) = 134.71, p < .001$ ; vulnerabilni:  $F(3,407) = 42.61, p < .001$ ). Kada se sagledaju univarijatni efekti prediktora, rezultati pokazuju da grandiozni narcizam ostvaruje značajan i pozitivan efekat na sve tri dimenzije emocionalne manipulativnosti, pri čemu je parcijalni doprinos nešto veći u slučaju Pogoršanja raspoloženja. Vulnerabilni narcizam ostvaruje značajan i pozitivan efekat na Pogoršanje raspoloženja i Neautentičnost, pri čemu je parcijalni doprinos viši u slučaju Neautentičnosti. Pored toga, pokazano je da starost ostvaruje značajan univarijatni efekat samo na Pogoršanje raspoloženja, i to u pozitivnom smeru. Rezultati pokazuju da su osobe s izraženim grandioznim narcizmom koji karakteriše superiorna slika o sebi, dominacija, agresivnost i uverenje da zaslužuju poseban tretman, više sklone različitim taktikama manipulacije, a posebno u cilju narušavanja tuđeg samopouzdanja. Osobe s izraženim vulnerabilnim narcizmom, koji karakteriše krhka i negativna slika o sebi, anksioznost, hostilnost, nepoverenje i vulnerabilnost, pre su sklone taktikama manipulativnosti koje uključuju neautentičnost emocionalnog ispoljavanja (laskanje, durenje, indukciju krivice, ljubomore i naklonosti kod drugih) zarad dobijanje pažnje od drugih.

Podaci su prikupljeni u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS (179006).

*Ključne reči:* emocionalna manipulativnost, grandiozni narcizam, vulnerabilni narcizam, pol, starost

## Effects of gender, age and narcissism in explanation of emotional manipulation

The aim of this study was to explore the relationships between socio-demographic characteristics (gender and age) and two dimensions of narcissism (grandiose and vulnerable) with techniques of emotional manipulation. The sample was comprised of 423 participants (208 males), aged from 18 to 85 (average age of 32 years), from whom 40% were students. Two scales of emotional manipulation from the Managing the emotions of others scale (MEOS) were used - Mood Worsening and Inauthentic, which are more closely related to emotional manipulation, as the scale

of the Perceived ability of emotional manipulation from a former version of the MEOS. Participants also completed Five Factor Narcissism Inventory (FFNI) which measures two dimensions of narcissism - grandiose and vulnerable.

Multivariate analysis of covariance was used, in which categorical predictor was gender and continuous predictors were age and scores on the two dimensions of narcissism. Criteria variables were scores on the three scales of emotional manipulation. Results showed that only two dimensions of narcissism have significant multivariate effects on emotional manipulation (grandiose:  $F(3,407) = 134.71, p < .001$ ; vulnerable:  $F(3,407) = 42.61, p < .001$ ). Grandiose narcissism had significant and positive effect on all three dimensions of emotional manipulation, with higher partial contribution for the Mood Worsening. Vulnerable narcissism had significant and positive effect on both Mood Worsening and Inauthentic, with higher partial contribution in a case of Inauthentic. Additionally, research showed that age has significant and positive univariate effect only in a case of Mood worsening. The findings indicate that persons with higher scores on grandiose narcissism, which includes superior self-image, domination, aggression and entitlement, are more likely to use all techniques of emotional manipulation, especially in order to decrease the level of self-confidence in others. Persons with higher scores on vulnerable narcissism, which are characterized by negative self-image, anxiety, hostility, mistrust and vulnerability, are more likely to use manipulation techniques such as inauthentic display for self-serving purposes (flattery, sulking and inducing guilt, sympathy and jealousy in others) in order to grab attention of other.

Data were collected as a part of the project of the Ministry of Education, Science and Technological Development RS (No. 179006).

**Keywords:** emotional manipulation, grandiose narcissism, vulnerable narcissism, gender, age

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## Strategije emocionalne regulacije i dimenzije impulsivnosti

Strategije emocionalne regulacije, kognitivna preformulacija i emocionalna supresija, pokazale su različit uticaj na afekat i druge aspekte ljudskog funkcionisanja. Naime frekventnija upotreba kognitivne preformulacije je povezana sa boljim kapacitetima za “popravku” negativnog raspoloženja, većim životnim zadovoljstvom, manje izraženim depresivnim simptomima, višim optimizmom, kao i višim samopouzdanjem, dok se frekventnija upotreba emocionalne supresije, strategije usmerene na regulaciju odgovora, povezuje sa nagomilavanjem negativnog afekta, deprivacijom memorije, učestalijim ruminiranjem, izraženijim depresivnim simptomima i nižim životnim zadovoljstvom. Cilj ovog istraživanja je bio utvrđivanje njihove povezanosti sa različitim dimenzijama impulsivnosti. U istraživanju je učestvovalo 205 ispitanika (112 ženskog pola), starosti od 18 do 60 godina. Primenjeni su Upitnik emocionalne regulacije (ERQ), namenjen merenju učestalosti upotrebe strategija emocionalne regulacije, i Upitnik impulsivnosti (UPPS-P) namenjen merenju dimenzija impulsivnosti (pozitivne i negativne hitnosti, nedostatka istrajnosti, nedostatka promišljenosti i traženja doživljaja). Analizom glavnih komponenti u prostoru dimenzija oba upitnika, na osnovu Scree kriterijuma izdvojene su dve komponente, pri čemu prva, Kognitivna komponenta, obuhvata sve dimenzije impulsivnosti, osim traženja doživljaja, i nisku sklonost kognitivnoj preformulaciji, pri čemu veći udeo ostvaruju dimenzije koje se odnose na nedostatak istrajnosti i nedostatak promišljenosti, odn. na kognitivni aspekt impulsivnosti. Druga, Ponašajno-Afektivna komponenta, obuhvata aspekte impulsivnosti koji se odnose na hitnost tj. neodolevanje željama i nagonima u stanju pozitivnog ili negativnog afekta, traženje doživljaja, kao i pozitivnu emocionalnu supresiju. Kako bi se dalje ispitaio odnos dimenzija sprovedene su dve hijerarhijske regresione anlaize. U prvom koraku obe analize prediktori su bili pol i starost, dok su kriterijumi bile strategije emocionalne regulacije. Pokazano je da se na osnovu pola i starosti značajno može predvideti emocionalna supresija ( $F(2,180) = 13.36, p < .01$ ), pri čemu je objašnjeno oko 13% njene varijanse ( $\Delta R = .129, \Delta p < .01$ ). Starost se pokazala kao značajan prediktor emocionalne supresije ( $\beta = .383, p < .01$ ). U drugom koraku, prediktori su bile

dimenzije impulsivnosti i dobijeno je da se na osnovu njih značajno može predvideti emocionalna supresija ( $F(5,175) = 7.35, p < .01$ ) pri čemu je objašnjeno dodatnih 9% varijanse ( $\Delta R = .098, \Delta p < .01$ ), ali ne i kognitivna preformulacija. Kao značajni prediktori izdvajaju se viša promišljenost ( $\beta = -.201, p < .05$ ), pozitivna hitnost ( $\beta = .312, p < .01$ ) i nedostatak istrajnosti ( $\beta = .251, p < .01$ ). Dobijeni rezultati govore u prilog tome da je supresija manje optimalna strategija emocionalne regulacije. Istraživanjem je takođe pokazana nužnost uzimanja u obzir multidimenzionalnosti ispitivanih fenomena, kao i složenost povezanosti emocionalne regulacije i impulsivnosti.

*Ključne reči:* emocionalna regulacija, kognitivna preformulacija, emocionalna supresija, impulsivnost

### Emotional regulation strategies and impulsivity dimensions

Emotion regulation strategies, cognitive reappraisal and emotional suppression, showed different impact on affect and other aspects of human functioning. More frequent use of cognitive reappraisal, antecedent strategy, correlates with better facilities to "fix" negative mood, greater life satisfaction, less severe depressive symptoms, higher optimism, and higher self-esteem, while more frequent use of emotional suppression, a response-focused strategy, is associated with the accumulation of negative affect, deprivation of memory, frequent ruminating, pronounced depressive symptoms and lower life satisfaction. The goal of this study was to establish their connection with different dimensions of impulsivity. The sample included 205 participants (112 women), age from 18 to 60. Two instruments were used - Emotional regulation questionnaire (ERQ), for measuring frequency of use of emotion regulation strategies, and Impulsivity questionnaire UPPS-P which measures dimensions of impulsivity (positive urgency, negative urgency, (lack off) perseverance, (lack off) premeditation and sensation seeking). Based on principal component analysis on scales from both instruments, based on Scree criteria, two components were extracted. The first, Cognitive component, included all dimensions of impulsivity, except for sensation seeking, and low tendency toward cognitive reappraisal. The main contribution to the first component had lack off perseverance and lack off premeditation, referring to cognitive aspect of impulsivity. The second, Behavioral-Affective component, included aspects of impulsivity that refer to positive and negative urgency, and sensation seeking. In this component, emotional suppression had significant contribution, in positive direction. Two hierarchical regressions gave us clearer

insight in relation between emotion regulation strategies and impulsivity dimensions. In the first step, of both analyses, predictor variables were gender and age, and criteria were emotion regulation strategies. It showed that emotional suppression can be predicted by gender and age ( $F(2,180) = 13.36, p < .01$ ) and about 13% of its variance has been explained by predictors ( $\Delta R = .129, \Delta p < .01$ ). Significant predictor was age ( $\beta = .383; p < .01$ ). In the second step, predictors were dimensions of impulsivity and it showed that emotional suppression can be predicted by dimensions of impulsivity ( $F(5,175) = 7.35, p < .01$ ), about 9% of its variance is explained by dimensions of impulsivity ( $\Delta R = .098, \Delta p < .01$ ), but cognitive reappraisal can not. Emotional suppression can be predicted by higher premeditation ( $\beta = -.201, p < .05$ ), positive urgency ( $\beta = .312, p < .01$ ) and lack of perseverance ( $\beta = .251, p < .01$ ). Results indicate that emotional suppression is less optimal emotion regulation strategy. This research also demonstrated the necessity of taking into account multidimensionality of investigated phenomena, as well as the complexity of the relationship of emotional regulation and impulsivity.

Keywords: emotion regulation, cognitive reappraisal, emotional suppression, impulsivity

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**Uloga ruminacija o besu u odnosu između agresivnosti i agresivnog ponašanja: analiza medijacije i moderacije**

Iako je osobina agresivnost dominantan prediktor agresivnog ponašanja, odnos agresivnosti i agresivnog ponašanja nije tako jednostavan imajući u vidu da se agresija može ispoljiti na različite načine. Osnovna podela agresivnog ponašanja u odnosu na njegovu funkciju je na reaktivnu i proaktivnu. Primarni cilj reaktivne agresije je nanošenje štete drugima, a proaktivne npr. sticanje materijalnog bogatstva, statusa u društvu, dominacije, isterivanja pravde i slično. Reaktivna agresija se, pored agresivnosti, povezuje i sa povišenjem na besu, hostilnosti, anksioznosti i neuroticizmu, s čime se inače povezuje i ruminiranje o besu. S obzirom na to, može se očekivati da će jedan od mehanizama koji stoji u osnovi

veze agresivnosti i reaktivne agresije biti ruminiranje o besu. Sa proaktivnom agresijom ruminiranje o besu ne bi trebalo da bude povezano, međutim, moguće je da drugačiji obrazac veza stoji u odnosu agresivnosti, ruminacija o besu i proaktivne agresije.

Cilj ovog istraživanja je ispitivanje medijatorske i moderatorske uloge ruminacija o besu na odnos između agresivnosti s jedne, i reaktivne i proaktivne agresije s druge strane. Na uzorku od 637 ispitanika iz opšte populacije (53% ženskog pola), starosti od 18 do 73 godina (AS = 30.35, SD = 12.40), primenjeni su Upitnik agresivnosti BODH, Upitnik reaktivne-proaktivne agresije i Skala ruminacija o besu. U makrou PROCESS testirani su medijatorski i moderatorki efekti ruminacija o besu. U slučaju predikcije reaktivne agresije, dobijen je značajan medijatorski efekat ruminacija o besu, ali ne i moderatorski. Ovaj efekat je pozitivan ( $B = .03$ ,  $BootLLCI = .01$ ,  $BootULCI = .04$ ), što upućuje na zaključak da su agresivnije osobe sklonije ruminiranju o besu, što ih čini sklonijima ka reaktivnoj agresiji. S druge strane, u predikciji proaktivne agresije dobijen je značajan moderatorski efekat ruminacija o besu, ali ne i medijatorski. U okviru analize moderacije, interakcija agresivnosti i ruminacija o besu ostvaruje značajan, ali mali doprinos predikciji ( $R^2 = .02$ ,  $p = .00$ ), i to u odnosu na sve nivoe izraženosti ruminacija o besu. Pri tome, veza agresivnosti i proaktivne agresije je najviša kod povišenog ruminiranja o besu. Drugim rečima, osobe koje su agresivne i uz to sklone ruminiranju o besu će biti sklone proaktivnoj agresiji. Može se zaključiti da ruminacije o besu predstavljaju mehanizam usled kojeg agresivnije osobe ispoljavaju reaktivnu agresiju. Dakle, kada dožive neku provokaciju, agresivnije osobe ruminiraju o besu, što ih dovodi do reaktivne agresije. Reaktivna agresija, na taj način, može biti regulator napetosti ili afekta. Međutim, da bi agresivnije osobe ispoljile proaktivnu agresiju, potrebno je da ujedno budu i više sklone ruminiranju o besu. Drugim rečima, potrebno je da budu više kognitivno angažovane u razmatranju agresivnih epizoda, mogućih uzroka i ishoda i slično, što je u skladu sa određenjem proaktivne agresije kao promišljenije funkcije agresije.

Podaci su prikupljeni u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS (ON179006).

*Ključne reči:* ruminacije o besu, agresivnost, reaktivna agresija, proaktivna agresija

The role of anger rumination in relationship between aggressiveness and aggressive behavior: Mediation and moderation analysis

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Although trait aggressiveness is the main predictor of aggressive behavior, relationship between aggressiveness and aggression is not that simple, bearing in mind that aggression can be expressed in different ways. According to function of aggression, the main distinction is on reactive and proactive aggression. The primary aim of reactive aggression is harming the others, and the primary aim of proactive aggression is, for example, obtaining material wealth, status in society, domination, rough justice etc. Reactive aggression is related to high anger, hostility, anxiety and neuroticism, beside the aggressiveness. Those are also correlates of anger rumination. Given that, it can be predicted that anger rumination could be one of mechanisms, which is underlying relationship between aggressiveness and reactive aggression. Anger rumination is not necessary related to proactive aggression, but, it is possible that a different pattern of relation is underlying relationships between aggressiveness, anger rumination and proactive aggression.

The aim of this study was examination of mediation and moderation effects of anger rumination in relations between aggressiveness on the one hand, and reactive and proactive aggression, on the other hand. On a sample of 637 participants from general population (53% females), aged from 18 to 73 years ( $M = 30.35$ ,  $SD = 12.40$ ), three instruments were used: Aggressiveness questionnaire AVDH, Reactive-Proactive Aggression Questionnaire, and Anger Rumination Scale. Mediation and moderation effects of anger rumination were tested in PROCESS macro. In a case of prediction of reactive aggression, anger rumination had significant mediation but not moderation effect. This effect was positive ( $B = .03$ ,  $BootLLCI = .01$ ,  $BootULCI = .04$ ), which indicated that persons with higher scores on aggressiveness are more prone to anger rumination, which in turn had effect on tendency toward reactive aggression. On the other hand, anger rumination had moderation effect and not mediation in a case of prediction of proactive aggression. In moderation analysis, interaction between aggressiveness and anger rumination had significant but small contribution to the prediction of proactive aggression ( $R^2 = .02$ ,  $p = .00$ ), with respect to all the levels of anger rumination. Thereby, relationship between aggressiveness and proactive aggression was mostly expressed on higher scores of anger rumination. In another words, persons with higher aggressiveness, who are also prone to anger rumination, will be more prone to proactive aggression. It could be concluded that anger rumination is the mechanism due to which more aggressive persons express reactive aggression. Therefore, when aggressive persons experienced some provocation, they more ruminate about anger, which in turn leading them to expression of reactive

aggression. In that way, reactive aggression could be tension or affect regulator. However, to express proactive aggression, more aggressive persons should be more prone to anger rumination, at the same time. They need to be more cognitively engaged in considering aggressive episodes, potential causes and consequences etc, which is in line with determination of proactive aggression as more premediated function of aggression.

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**Keywords:** anger rumination, aggressiveness, reactive aggression, proactive aggression

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## Grandiozni i vulnerabilni narcizam u kontekstu HEXACO modela ličnosti

Narcizam je heterogen konstrukt, te se pretpostavlja da njegove dimenzije imaju različite korelate. Cilj ovog istraživanja je ispitivanje efekta osobina ličnosti prema HEXACO modelu i socio-demografskih karakteristika (pol i starost) u predikciji dve najčešće ispitivane dimenzije narcizma koje se odnose na grandiozni i vulnerabilni narcizam. Uzorak se sastojao od 420 ispitanika (208 muškog pola), pretežno studenata, starosti od 18 do 85 godina ( $AS = 31.59$ ,  $SD = 14.24$ ). Od instrumenta je korišćena kraća forma HEXACO-PI-R-a, kojom se meri šest osobina ličnosti, i Petofaktorski inventar narcizma (FFNI) kojim se mere dve pomenute dimenzije narcizma. Primenjena je multivarijatna analiza kovarijanse pri kojoj je kategorijalni prediktor bio pol, kontinuirani prediktori su bili skorovi na skalama HEXACO-PI-R-a i starost, a kriterijumi su bili skorovi na dve dimenzije narcizma inventara FFNI. Rezultati pokazuju da starost i sve osobine, osim Savesnosti, ostvaruju značajan multivarijatni efekat u predikciji narcizma, pri čemu je efekat Otvorenosti marginalano značajan ( $p = .06$ ). Poštenje predstavlja dominantan prediktor obe dimenzije narcizma, u očekivanom negativnom smeru. Pri tome, efekat Poštenja je veći u slučaju grandioznog narcizma ( $\eta^2 = .28$ ), u odnosu na vulnerabilni ( $\eta^2 = .10$ ). Takođe, i Prijatnost ostvaruje značajan univarijatni efekat na obe dimenzije

narcizma, u negativnom smeru ( $\eta^2 = .02$  za obe dimenzije narcizma). Pored njih, grandiozni narcizam značajno predviđaju starost ( $\eta^2 = .02$ ) i Emocionalnost marginalno ( $p = .07$ ,  $\eta^2 = .01$ ), obe u negativnom smeru, a Ekstraverzija ( $\eta^2 = .13$ ) i Otvorenost ( $\eta^2 = .01$ ) u pozitivnom smeru. Vulnerabilni narcizam značajno predviđaju, takođe, Emocionalnost u pozitivnom ( $\eta^2 = .12$ ), a Ekstraverzija u negativnom smeru ( $\eta^2 = .06$ ), dok veza sa Otvorenošću nije značajna. Pol ne ostvaruje značajan efekat u objašnjenju dimenzija narcizma. Rezultati potvrđuju konvergentnu i divergentnu validnost skala narcizma i idu u prilog opravdanosti razlikovanja grandioznog i vulnerabilnog narcizma. U prilog tome ide i niska korelacija između ove dve skale narcizma ( $r = .21$ ).

Podaci su prikupljeni u okviru projekta Ministarstva prosvete, nauke i tehnološkog razvoja RS (ON179006).

*Ključne reči:* grandiozni narcizam, vulnerabilni narcizam, HEXACO, pol, starost

### Grandiose and vulnerable narcissism in context of HEXACO personality model

Narcissism is a heterogeneous construct, and therefore it is justified to assume that narcissism dimensions have different correlates. The aim of this study was to explore the effects of personality traits from the HEXACO model and socio-demographic characteristics (gender and age) in prediction of two dimensions of narcissism - grandiose and vulnerable narcissism. The sample consisted of 420 participants (208 male), mostly students, aged 18 to 85 years ( $M = 31.59$ ,  $SD = 14.24$ ). The used instruments were the short form of HEXACO-PI-R, which measures six personality traits, and Five Factor Narcissism Inventory (FFNI), which measures two mentioned dimensions of narcissism. Multivariate analysis of covariance was applied, with gender as categorical predictor, scores on scales of HEXACO-PI-R and age as continuous predictors, and scores on two dimensions of narcissism from FFNI as criteria. The results showed that age and all dimensions, except Conscientiousness, had significant multivariate effects in prediction of narcissism, while effect of Openness was marginally significant ( $p = .06$ ). Honesty-Humility is dominant predictor both narcissism dimension, in expected negative direction. Thereby, effect of Honesty-Humility is higher in prediction of grandiose narcissism ( $\eta^2 = .28$ ), compared to vulnerable ( $\eta^2 = .10$ ). Also, Agreeableness had significant univariate effects in predictors of both dimensions of narcissism, in negative direction ( $\eta^2 = .02$  for both dimensions of narcissism). Besides them, grandiose

narcissism can be explained by the age ( $\eta^2 = .02$ ) and marginally by the Emotionality ( $p = .07$ ,  $\eta^2 = .01$ ), both in negative direction, and by the Extraversion ( $\eta^2 = .13$ ) and Openness ( $\eta^2 = .01$ ), both in positive direction. Vulnerable narcissism can be explained also by Emotionality in positive ( $\eta^2 = .12$ ) and Extraversion in negative direction ( $\eta^2 = .06$ ), while relationship with Openness was not significant. Gender was not a significant predictor of narcissism dimensions. Results confirmed convergent and divergent validity of narcissism scales and support the justification of distinguishing two types of narcissism. This is also confirmed by the low correlation between two narcissism scales ( $r = .21$ ).

Data were collected as a part of the project of the Ministry of Education, Science and Technological Development RS (No. 179006).

Keywords: grandiose narcissism, vulnerable narcissism, HEXACO, gender, age

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## Struktura relacija između dimenzija porodičnog okruženja i osobina ličnosti

Porodični kontekst odrastanja važan je za razvoj ličnosti. Koncept porodičnog okruženja ili porodične klime, Moos i Moos su još 1974. definisali preko relacija bliskosti, konflikata i emotivne razmene. Cilj ovog istraživanja je ispitivanje strukture relacija između dimenzija porodičnog okruženja i osobina ličnosti prema Velikih pet plus dva na adolescentnom uzorku. Na uzorku od 200 učenika IV razreda srednjih škola (100 devojaka) primenjeni su Block Environmental Questionnaire (BEQ) za procenu dimenzija porodičnog okruženja i kratka verzija upitnika Velikih pet plus dva (VP+2-70) kojim se meri sedam osobina ličnosti. Najpre je sprovedena faktorska analiza u užem smislu nad stavkama upitnika BEQ. Na osnovu Scree dijagrama izdvojeno je šest faktora. Faktori su imenovani kao Roditeljsko odbacivanje, Majčino prihvatanje, Očevo prihvatanje, Porodična struktura i organizacija, Status i Kulturno-umetnička orijentacija. Kanoničkom korelacionom analizom je ispitivana struktura relacija dimenzija porodičnog okruženja i osobina ličnosti. Ovom analizom su izdvojena tri značajna para



kanoničkih faktora. Prvi par objašnjava 32% varijanse dva skupa varijabli. U prostoru osobina ličnosti najviše opisuju Otvorenost ka iskustvu i Ekstraverzija, a iz prostora porodičnog okruženja Kulturno-umetnička orijentacija, Porodična struktura i Majčino prihvatanje. Dakle, topla porodična klima s naglaskom na majčin prihvatajući vaspitni stil, kao i usmeravanje od strane roditelja ka kulturnim sadržajima i dobroj organizaciji slobodnog vremena, povezuje se sa karakteristikama ličnosti adolescenata koje ukazuju na intelektualnu otvorenost i aktivno traženje novih i uzbudljivih iskustava. Drugi par objašnjava 22% preostale varijanse. U prostoru osobina ličnosti čine ga Negativna valenca, Neuroticizam i Agresivnost, a u prostoru porodičnog okruženja Status, Roditeljsko odbacivanje i Očevo odbacivanje. Za adolescente koji su skloni negativnom afektu i koji imaju slabu kontrolu agresivnih impulsa, može se pretpostaviti da su iskusili neki oblik roditeljskog odbacivanja, sa akcentom na odbacujući stil oca. Pored toga, u porodičnom okruženju ovih adolescenata se ističe materijalni status. Treći kanonički par objašnjava 12% od preostale varijanse. Ovaj par predstavlja povezanost Neuroticizma, niske Ekstraverzije i niske Pozitivne valence sa Roditeljskim odbacivanjem, ali i niskom Porodičnom strukturom i organizacijom. Dakle, introverti koji nemaju izraženu pozitivnu sliku o sebi, a pri tome su skloni negativnom afektivitetu izveštavaju o roditeljskom odbacivanju i okruženju u kojem je akcenat na poštovanju pravila.

*Ključne reči:* porodično okruženje, BEQ, osobine ličnosti, VP+2, adolescenti

### Structure of relations between family environment and personality dimensions

Family context of growing up is important for development of a child's personality. The concept of a family environment was defined by Moos and Moos in 1974, through relations of closeness, conflicts and emotional exchange. The aim of this research was to explore the structure of relationships between dimensions of family environment and personality dimensions according to Big five plus two, on a sample of adolescents. The sample included 200 fourth grade students of high school (100 of them are female). Block Environmental Questionnaire (BEQ) was applied to estimate the dimensions of a family environment, and a short version of the questionnaire Big Five plus Two (BF+2-70) which measures seven personality traits. Based on results of common factor analysis, and Scree diagram, six factors of the BEQ was extracted: Parental rejection, Mother's acceptance, Father's acceptance, Family structure, Status and Cultural-art orientation. Structure of

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relations between dimensions of family environment and personality dimensions was explored by canonical correlation analysis. By this analyses, three pairs of canonical factors were extracted as significant. The first pair explains 32% of variance. In domain of personality traits was explained by Openness to experience and Extraversion, and by Cultural-art orientation, Family structure and Mother's acceptance from the domain of family environment. Therefore, warm family environment with accent on mother's accepting learning style, and parental guidance toward cultural contents and well organization of free time, can be related to characteristics of adolescent personality which included intellectual openness and active seeking for new and exciting experiences. The second pair explains 22% of residual variance. It contains the personality traits such as Negative valence, Neuroticism and Aggressiveness. In domain of family environment, this pair included Status, Parental rejection and Father's rejection. For adolescents who are prone to negative emotions and have less controlled aggressive impulses, it can be assumed that they had experienced some form of parental rejection, with an emphasis on father's rejecting style. In addition, the family environment of these adolescents emphasizes material status. The third canonical pair explains 12% of variance. It presents the relation of Neuroticism, low Extraversion and low Positive Valence with Parental rejection, as well as low Family structure and organization. Introverts who do not have a positive image of themselves and who being prone to negative affectivity, report parental rejection and the environment in which the emphasis is on respect for rules.

*Keywords:* family environment, BEQ, personality traits, BF + 2, adolescents

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