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PLENARNA PREDAVANJA
PLENARY LECTURES



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Virtuelna maskarada: Istraživanje mnogostrukih lica onlajn samoprezentacije

U poredo sa brzim napretkom novih tehnologija i digitalnih tehnologija u nastajanju, kao što su Internet i virtuelna stvarnost, pojavile su se jedinstvene prilike za istraživanje i fleksibilnu izgradnju identiteta. Dok se za većinu korisnika ovo može jednostavno ispoljiti kao prikazivanje ulepšane slike sebe na mreži, postoji potencijal i da se živi potpuno drugačiji virtuelni život koji ne bi bio ograničen oflajn slikom sebe. Inspirisano Gofmanovom (1956) idejom o izvedenom sopstvu, dvokomponentnim modelom upravljanja utiskom Learija i Kovalskog (1990) i Valterovom (2007) hiperpersonalnom teorijom onlajn komunikacije, ovo predavanje će početi pregledom i evaluacijom ključnih teza u vezi sa fleksibilnijom samoprezentacijom na mreži, posebno anonimnošću, asinhronošću i mogućnostima njenog uređivanja i kreiranja. Razmotrićemo kako sama onlajn platforma, kao i razlozi njenog korišćenja, mogu uticati na samoprezentaciju. Na primer, neki onlajn prostori će korisnicima pružiti mogućnosti koje drugi nemaju, a neke platforme (npr. platforme za onlajn upoznavanje) mogu biti povezane sa snažnijom motivacijom za samoprezentovanje zbog relevantnosti utisaka za cilj. Uzimajući u obzir višestrukost naših identiteta, ulazak u različite oblasti onlajn sveta takođe će uticati na verovatnoću da određeni identitet posne aktivan. U nekim slučajevima, ovo može biti identitet koji je neaktivan ili skriven u nečijem životu van mreže, što znači da internet omogućava pojedincima da istraže moguće ja. Prihvatajući to da neće svaka osoba koja uđe u sajber prostor iskoristiti priliku da eksperimentiše sa samoprezentacijom, fokusiraću se na različite osobine ličnosti povezane sa idealizovanim i raznovrsnim oblicima onlajn samoprezentacije, uključujući jasnoću self koncepta, socijalnu anksioznost, samopoštovanje i samonadgledanje. Konkretnije, govoriću o nalazima iz tri nezavisne studije koje se oslanjaju na Skalu predstavljanja onlajn selfa (POSS), koja je kreirana za merenje različitih različitih oblika onlajn samoprezentacije. Osvrnuću se na to koliko fleksibilna samoprezentacija može uticati na utiske drugih i na način na koji procenjujemo sebe. Na primer, da li komunikacija u sajber prostoru utiče na talnost sa kojom možemo da procenimo raspoloženja i ličnosti drugih? Da li predstavljanje idealizovane slike na mreži menja naš pogled na sebe? Konačno, predavanje će se fokusirati na trenutno stanje u istraživanjima samoprezentacije na mreži kako bi se identifikovali budući istraživački putevi.

Virtual Cosplay: Exploring the Many Faces of Technology-mediated Self-presentation

Alongside the rapid advancement of new and emerging digital technologies, such as the Internet and Virtual Reality, unprecedented opportunities for self-exploration and



flexible identity construction have arisen. While for most users this might simply extend to curating a more polished online persona, e.g., via their social media platforms, there is nonetheless the potential to live out an entirely different virtual existence if one wishes to, which would be unconstrained by one's offline self-image. Underpinned by Goffman's (1956) notion of the performed self, Leary and Kowalski's (1990) two component model of impression management and Walther's (2007) hyperpersonal theory of computer-mediated communication, this keynote talk will begin by outlining and evaluating the key affordances associated with more flexible online self-presentation, in particular anonymity, editability and asynchronicity. Following on from this, the talk will consider how the online platform itself, as well as the reasons why someone might choose to use it, can affect self-presentation behaviour. For instance, some online spaces will provide affordances to users which others do not, and some platforms (e.g., online dating) may be associated with increased self-presentation motivation due to the goal relevance of impressions. Acknowledging that the self is multifaceted, entering different areas of the online world will also affect the likelihood that a particular identity will become active. In some instances, this may be an identity which is dormant or hidden in one's offline life, meaning that the Internet allows individuals to explore possible selves. Recognising that not every person who enters cyberspace will take up opportunities to experiment with self-presentation, the talk will then focus on the various personality traits associated with more idealised and diverse forms of online self-presentation, including self-concept clarity, social anxiety, self-esteem, and self-monitoring. More specifically, I will discuss findings from three independent studies using the Presentation of Online Self Scale (POSS), a new scale we created to measure various diverse forms of online self-presentation behaviour. The talk will then reflect on how more flexible self-presentation might impact the impressions of others, as well as how we might evaluate ourselves. For example, does communicating in cyberspace affect the ease with which we might accurately judge the dispositions and personalities of others? Does presenting a more idealised image online change our view of ourselves? Finally, the talk will focus on the current state of play in online self-presentation research to identify future research pathways.



David Funder

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Psihološka istraživanja širom sveta: mogućnosti, prepreke i iznenađenja

Međunarodnim projektom o situacijama (engl. The International Situations Project, ISP) obuhvaćeno je više od 17000 osoba u 62 zemlje, na 40 jezika, u saradnji s međunarodnim timom koji čini više od 100 psihologa. Sažeto ću prikazati neke od ključnih rezultata



projekta I opisati mogućnosti za dalja istraživanja u ovoj oblasti, čije sprovođenje olakšava internet ali i, prevashodno, spremnost psihologa iz celog sveta da sarađuju. Prepreke su takođe brojne, uključujući procedure finansiranja koje ne podržavaju međunarodnu saradnju, i insistiranje urednika, recenzenata i komisija za dodelu finansijskih sredstava na metodološkim kriterijumima koji se retko primenjuju na istraživanja sprovedena na nacionalnom nivou. Naposljetku, osvrnuću se na dva opšta zaključka koja su me iznenadila. Najpre, pojam etničke pripadnosti, koji se u SAD tretira kao egzaktna kategorija, zapravo je rasplinuta socijalna konstrukcija sa veoma raznolikim značenjem u raznim zemljama. Potom, ljudi širom sveta mnogo se manje razlikuju među sobom nego što se verovalo.

Doing Psychological Research Around the World: Opportunities, Obstacles, and Surprises

The International Situations Project (ISP) has gathered data from more than 17000 individuals in 62 countries, using 40 languages, in collaboration with an international team of more than 100 psychologists. I will summarize some substantive findings from the project, and describe opportunities for more research of this kind, facilitated by the internet and, more importantly, the eagerness of psychologists around the world to participate. Obstacles also abound, including funding policies that discourage international collaboration, and the insistence of editors, reviewers, and grant panels on methodological criteria that are seldom applied to studies done only within a single country. Finally, I will present two overall conclusions which surprised me. First, the concept of ethnicity, treated as a reified categorization in the US, is actually a fluid social construction with widely different meanings in different countries. Second, people around the world are much less different from each other than was long presumed.



Jessica de Bloom

University of Groningen, Department for Human Resource Management and Organizational Behavior

Vreme je važno: uvidi o oporavku tokom izazovnih vremena

Psihološkinja zdravlja na radu, dr Džesika de Blum, će prikazati pregled svojih istraživanja na temu značaja i efekata epizoda oporavka - od mikro-pauza do dužih odmora. Fokus će biti stavljen na osnovne uslove i ključne mehanizme koji pomažu procesu oporavka od zahtevnog posla i objašnjavaju kako radno okruženje može pružiti podršku procesima oporavka sa ciljem omogućavanja da radni život zaposlenih bude održiv. Dok istraživači počinju da istražuju oporavak kao fenomen koji se prirodno dešava, de Blum se postepeno pomera ka shvatanju oporavka kao procesa koji radnici mogu proaktivno da oblikuju. Njen integrativni model redizajniranja poslova baziran na identitetu sugeriše da zaposleni angažuju u procesima oblikovanja posla kako bi zadovoljili svoje bazične



potrebe kako na poslu, tako i tokom perioda odmora. Konačno, de Blum koristi svoju skorašnju randomizovanu studiju „neograničenog odmora" kao primer da se fokusira na šire organizacione i društvene izazove koji ograničavaju mogućnosti za oporavak. U savremenom poslu, self-menadžment (tj. lična inicijativa, samomotivacija i samodisciplina) sve više istiskuje eksterne zabrane, regulaciju i kontrolu zaposlenih. Ubrzano radom na daljinu i prateći smanjene mogućnosti i zahteve za direktnim rukovođenjem radom zaposlenih, savremeno shvatanje menadžmenta ljudskih resursa dovodi do visokog nivoa unutrašnje motivacije za rad, visoko angažovanih i produktivnih zaposlenih, ali i zaposlenih koji koriste (pre)malo vremena za oporavak i koji se mogu vremenom preterano iscrpeti.

Time is Honey: Insights on Recovery During Challenging Times

Occupational health psychologist Dr. Jessica de Bloom will provide an overview of her research on the importance and the effects of recovery episodes – from micro breaks to vacations. She will zoom in on the basic conditions and key mechanisms that assist recovery from demanding working life and explain how work environments can support recovery processes to enable sustainable working lives. Whilst researchers have started to investigate recovery as a naturally occurring phenomenon, de Bloom has gradually moved to viewing it as a process that workers can proactively shape. Her identity-based integrative needs model of crafting suggests that workers engage in so-called crafting efforts to satisfy psychological needs, both at work and during leisure time. Finally, de Bloom uses her latest randomized controlled trial on “unlimited leave” as an example to focus on the wider organizational and societal challenges that limit possibilities for recovery. In modern work, external prohibition, command, and regulation at work are increasingly replaced by self-management (i.e., personal initiative, self-motivation, self-discipline). Accelerated by telework and accompanying reduced possibilities and requirements to manage people’s work, modern HR management leads to high levels of intrinsic work motivation, highly engaged and productive employees, but also employees that take (too) little time to recover and who may eventually exploit themselves.



Peter Kindermann

University of Liverpool, Faculty of Health and Life Sciences, Department of Primary Care and Mental Health

Manifest mentalnog zdravlja

Neophodne su nam izvesne promene u načinu na koji razmišljamo o mentalnom zdravlju. Korisnici usluga u oblasti mentalnog zdravlja trpe određene posledice usled aktuelnog patologizujućeg narativa, te su nam potrebne promene ne samo u načinu na koji razumemo njihove probleme, već i u kreiranju i obezbeđivanju mentalno-



zdravstvenih servisa. Potrebno je da preispitamo „model bolesti“ koji na emocionalni distress gleda isključivo kao na simptom biološke bolesti, te da se usmerimo na razumevanje problema u oblasti mentalnog zdravlja kao fundamentalno društvenih i psiholoških fenomena – proizvoda načina na koji razumemo svet i reagujemo na njega. Umesto da akcenat stavljamo na dijagnostikovanje i lečenje 'abnormalnosti', smatram da bi trebalo da se usmerimo na kreiranje sistemskih psiholoških i socijalnih rešenja ovih problema. Praktičari bi trebalo, kao što se u izveštaju Generalne skupštine Ujedinjenih naroda navodi; „... da napuste prevladavajući model koji je usmeren na dijagnostikovanje poremećaja i izlečenje pojedinaca [i] da se pozabave 'neravnotežom moći', a ne 'hemijskom neravnotežom'." To bi istovremeno značilo usmerenost na prevenciju fundamentalnih uzroka koji dovode do problema u oblasti mentalnog zdravlja, smanjenje usmerenosti na dijagnoze i upotrebu lekova u meri u kojoj je to moguće, a umesto toga fokusiranje na razvoj psiholoških formulacija problema u oblasti mentalnog zdravlja, uvođenje sistematskih intervencija i rad sa obrazovnim sistemom i unutar njega... za šta je sve potrebna politička podrška.

A Manifesto For Mental Health

Radical change in how we think about mental health is imperative. Individuals caught up in the mental health system are being harmed by the current pathologizing approach and wholesale change, not only in how we understand mental health problems but also in how we design and commission mental health services. The ‘disease model’ which sees emotional distress merely as a symptom of biological illness must be rejected, and instead mental health problems should be viewed as fundamentally social and psychological issues – the products of how we understand and respond to the world. Instead of thinking about diagnosing and treating 'abnormality', the presenter argues we should replace ‘diagnoses’ with straightforward descriptions of our problems, and focus on psychological and social solutions. Practitioners should, as a recent report to the United Nations General Assembly has made clear; “... abandon the predominant medical model that seeks to cure individuals by targeting ‘disorders’ [and] address the ‘power imbalance’ rather than ‘chemical imbalance’.” This would mean addressing and preventing the root causes of distress, avoiding both diagnosis and the use of medication as much as possible, and instead develop a greater reliance on psychological formulation, systemic interventions and working with and within the education system... all of which demands political support.



SIMPOZIJUMI

SYMPOSIA



SEKSUALNO UZNEMIRAVANJE U PRIVATNOM, ORGANIZACIJSKOM I ONLAJN OKRUŽENJU SEXUAL HARASSMENT IN PRIVATE, ORGANIZATIONAL AND ONLINE SETTINGS

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Iskustva seksualnog uznemiravanja i nasilja kod zaposlenih na Univerzitetu u Novom Sadu: učestalost i korelati

Nasilje je fenomen koji je zastupljen u svim radnim okruženjima, pa i akademskom. Ono može uključivati fizičko, psihičko, ekonomsko, seksualno i onlajn nasilje, kao i seksualno uznemiravanje (skr. SU). UniSafe studija je evropski projekat koji mapira nasilje i seksualno uznemiravanje u univerzitetskom okruženju, tj. među studentima i zaposlenima na univerzitetima širom Evrope. U ovom radu prikazani su rezultati UniSafe studije koji se odnose na učestalost i korelate (bezbednost u radnom okruženju, socijalna isključenost, blagostanje, uključenost u posao) različitih oblika nasilja kod zaposlenih na Univerzitetu u Novom Sadu (skr. UNS), sa naročitim fokusom na SU.

Istraživanjem je obuhvaćeno 172 zaposlenih na Univerzitetu u Novom Sadu (123 žene, 71.5%). Podaci su prikuljeni upitnikom kreiranim za potrebe UniSafe studije kojim su, između ostalog, dobijeni podaci o učestalosti iskustva različitih oblika nasilja i seksualnog uznemiravanja, kao i o doživljaju bezbednosti u radnom okruženju, socijalnoj isključenosti, blagostanju i uključenosti u posao.

Rezultati ukazuju na to da je najučestaliji oblik nasilja na UNS psihičko (69.2% doživelo bar jednom), potom SU (38.4%), ekonomsko (27.9%), onlajn (5.2%), fizičko (4.7%) i seksualno nasilje (4.1%), dok je 74.4.% zaposlenih na UNS je doživelo bar jedan oblik nasilja ili uznemiravanja. Kad su u pitanju različita ponašanja koja se svrstavaju u SU, zaposleni na UNS najčešće su bili izloženi šalama i komentarima sa seksualnom konotacijom (27.3%), neprikladnim šala o fizičkom izgledu (20.9), neprikladnom zurenju (19.8%), neprikladnim pitanjima o privatnom životu (18.6%), neprikladnim dodirima (9.9%) i neprikladnim pozivima (7%). Korelacije pokazuju da je fizičko nasilje statistički



značajno povezano jedino sa stepenom uključenosti i posao (-.17). Seksualno nasilje je povezano sa socijalnom isključenošću (.17) i uključenosti u posao (-.17); onlajn nasilje je povezano sa doživljajem (ne)bezbednosti na radnom mestu (-.18), lošijim blagostanjem (.22) i smanjenom uključenosti u posao (-.36). Psihičko i ekonomsko nasilje i SU statistički značajno su povezani sa svim ispitivanim korelatima u očekivanom smeru ($r_s = |-.19| - |.57|$). Pojedinačna ponašanja koja se podvode pod seksualno uznemiravanje takođe su povezana sa doživljajem manje bezbednosti na radnom mestu ($r_s = (-.10) - (-.34)$), socijalne isključenosti ($r_s = .26 - .47$), smanjenog blagostanja ($r_s = .15 - .33$) i smanjenene uključenosti u posao ($r_s = (-.21) - (-.42)$).

Nalazi UniSafe studije ukazuju na to da je skoro tri četvrtine zaposlenih na UNS iskusilo bar jedan oblik nasilja ili uznemiravanja, pri čemu su najizraženiji psihičko nasilje i SU. Nasilje i seksualno uznemiravanje povezani sa nizom negativnih ishoda, od smanjenog doživljaja bezbednosti, blagostanja i uključenosti u posao, do socijalne isključenosti. Ipak, budući da se radi o korelacionoj studiji nije moguće sa sigurnošću reći da li su ovi negativni ishodi direktna posledica doživljenog nasilja.

Ključne reči: seksualno uznemiravanje, nasilje, rodno zasnovano nasilje, uključenost u posao, blagostanje

Zahvalnica: Podaci predstavljeni u radu rezultat su UniSafe projekta finansiranog od strane EU Horizon 2020 (Br. 101006261).

Experiences of sexual harassment and violence among employees of the University of Novi Sad: frequency and correlates

Workplace violence is a phenomenon that occurs in all work environments including the academic environment. It includes physical, psychological, economic, sexual and online violence and sexual harassment (abbr. SH). UniSafe study is a European project focused on violence and sexual harassment in a university context, i.e. among students and employees from universities all over Europe. In this paper, we present the results of the UniSafe study related to frequency and correlates (workplace security, social exclusion, well-being, work engagement) of different forms of violence among employees of the University of Novi Sad (abbr. UNS), with special focus on SH.

The study included 172 employees of UNS (123 female, 71.5%). Data were gathered by the survey constructed for the purpose of the UniSafe study and included (among other things) data on the frequency of different forms of violence and sexual harassment, as well as workplace security, social exclusion, well-being, and work engagement.

Results indicate that the most frequent form of violence among employees of UNS is psychical (69.2% experienced at least once), with SH coming after (38.4%). Then follow the economic (27.9%), online (5.2%), physical (4.7%), and sexual violence (4.1%), with 74.4% of employees experiencing at least one form of violence. When it comes to different behaviors indicative of SH, employees of UNS were most often exposed to sexually



suggestive comments (27.3), intrusive comments about their physical appearance (20.9%), inappropriate staring (19.8%), intrusive questions about private life (18.6%), inappropriate touching (9.9%), and inappropriate invitations (7%). Correlations suggest that the experience of physical violence is only related to work (dis)engagement (-.17). Sexual violence is related to social exclusion (.17) and work engagement (-.17); online violence is related to the feeling of the workplace (in)security (-.18), worse well-being (.22), and lowered work engagement (-.36). Psychological and economic violence and SH are related to all included correlates in the expected direction ($r_s = |-.19| - |.57|$). Individual behaviors indicative of SH are related to lessened workplace security ($r_s = (-.10) - (-.34)$), social exclusion ($r_s = .26 - .47$), lowered well-being ($r_s = .15 - .33$) and lowered work engagement ($r_s = (-.21) - (-.42)$).

The findings of this study indicate that almost three-fourths of employees at UNS have experienced at least one form of violence, with psychological being the most frequent. The experiences of violence and sexual harassment are related to a series of negative outcomes, such as workplace insecurity, lowered well-being and work engagement, and the feeling of social exclusion. However, this study does not support a causal interpretation of such relationships.

Keywords: sexual harassment, violence, gender-based violence, work engagement, well-being

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Efekti seksualnog uznemiravanja na samopercepciju uspešnosti i zadovoljstva poslom kod akademskog osoblja sa Univerziteta u Novom Sadu

Slučajevi seksualnog nasilja koji su se nedavno pojavili u javnosti podstakli su mnoge fakultete u Republici Srbiji da počnu sa prikupljanjem informacija o rasprostranjenosti seksualnog uznemiravanja, kako kod studenata, tako i kod zaposlenih u visokoobrazovnim institucijama. Ovo istraživanje je sprovedeno sa ciljem da se ispita rasprostranjenost raznih oblika seksualnog uznemiravanja, kao i da se ispituju



potencijalni efekti uznemiravanja na zadovoljstvo poslom i samoprocenjenu uspešnost nastavnog i nenastavnog osoblja dva fakulteta Univerziteta u Novom Sadu.

Ukupno 215 ispitanika (150 ženskog roda, 69.8%) učestvovalo je u istraživanju o učestalosti seksualnog uznemiravanja. Uzorak su činili zaposleni na dva fakulteta Univerziteta u Novom Sadu i to Filozofskog fakulteta (skr. FF; 163, 75.8%) i Fakulteta sporta i fizičkog vaspitanja (skr. FSFV; 52, 24.2%). Ispitanici su bili prosečne starosti od 45 godina, sa ukupnim stažom od 18.9 godina. Od nastavnog osoblja u uzorku je bilo najviše vanrednih profesora (46, 26.7%), zatim redovnih profesora (45, 26.2%), docenata 38 (22.1%), asistenata 31 (18%), a saradnika u nastavi 5 (2.9%). Podaci su prikupljeni putem ankete kreirane za potrebe ovog istraživanja.

Rezultati su pokazali da je iskustvo barem jednog oblika seksualnog uznemiravanja izvestilo 22 ispitanika (10.2%), od čega je daleko najučestalije verbalno uznemiravanje (17 slučajeva, odnosno 53% svih izveštenih slučajeva). Iako je više žena navelo da je bilo žrtava seksualnog uznemiravanja u poređenju sa muškarcima, rodne razlike nisu statistički značajne, $\chi^2(1) = 1.69$, $p = .19$. Takođe, iako je na FF evidentirano više opaženih slučajeva seksualnog uznemiravanja u poređenju sa FSFV, ni te razlike nisu statistički značajne, $\chi^2(1) = 1.49$, $p = .22$. Rezultati na poduzorku ispitanika iz redova nastavnog osoblja pokazali su da je više od polovina (54.2%) svih oblika seksualnog uznemiravanja izvršeno od strane kolege/koleginice iz višeg zvanja. Konačno, Mann-Whitney U testom utvrđeno je da ispitanici sa i bez iskustva seksualnog uznemiravanja nisu pokazali statistički značajne razlike u pogledu samoprocenjene uspešnosti u poslu (sve $p > .10$), ali su razlike evidentirane u pogledu zadovoljstva poslom, Mann-Whitney $U(213) = 1607.5$, $p = .05$, pri čemu su ispitanici sa iskustvom seksualnog uznemiravanja ocenili svoje zadovoljstvo poslom nižom ocenom.

Rezultati su diskutovani u kontekstu mogućnosti boljeg informisanja i prevencije svih oblika seksualnog uznemiravanja kod različitih kategorija zaposlenih u visokoobrazovnim institucijama.

Ključne reči: seksualno uznemiravanje, seksualno ucenjivanje, visokoobrazovne institucije, zadovoljstvo poslom, radna uspešnost

Zahvalnica: Projekat je podržan od strane Pokrajinskog sekretarijata za visoko obrazovanje i naučnoistraživačku delatnost

Effects of sexual harassment on self-perception of success and job satisfaction among academic staff from the University of Novi Sad

The cases of sexual violence that have recently appeared in public have prompted many faculties in the Republic of Serbia to begin collecting information on the prevalence of sexual harassment, among students and employees in higher education institutions. This research was conducted with the aim to examine the prevalence of various forms of sexual harassment and to examine the potential effects of harassment on job satisfaction and self-assessed success of teaching and non-teaching staff at two faculties of the University of Novi Sad.



215 respondents (150 female, 69.8%) participated in the survey on the frequency of sexual harassment. The sample consisted of employees at two faculties of the University of Novi Sad, namely the Faculty of Philosophy (abbr. FF; 163, 75.8%) and the Faculty of Sport and Physical Education (abbr. FSFV; 52, 24.2%). The respondents were, on average, 45 years old, with a total length of working experience of 18.9 years. Of the teaching staff in the sample, there were most associate professors (46, 26.7%), then full professors (45, 26.2%), assistant professors 38 (22.1%), assistants 31 (18%), and teaching associates 5 (2.9%). Data were collected through a survey created for this research. The results showed that at least one form of sexual harassment was reported by 22 respondents (10.2%), with verbal harassment being by far the most common (17 cases, or 53% of all reported cases). Although more women reported being victims of sexual harassment than men, gender differences were not statistically significant, $\chi^2(1) = 1.69$, $p = .19$. Also, although more cases of sexual harassment were recorded at FF compared to FSFV, these differences were not statistically significant either, $\chi^2(1) = 1.49$, $p = .22$. Results on a subsample of teaching staff showed that more than half (54.2%) of all forms of sexual harassment were committed by colleagues from higher positions. Finally, the Mann-Whitney U test showed that respondents with and without experience of sexual harassment did not show statistically significant differences in terms of self-assessed job performance (all $p > .10$), but differences were recorded in terms of job satisfaction, Mann-Whitney $U(213) = 1607.5$, $p = .05$, with respondents with experience of sexual harassment rating their job satisfaction lower.

The results are discussed in the context of the possibility of better informing and preventing all forms of sexual harassment among different categories of employees in higher education institutions.

Keywords: sexual harassment, sexual blackmail, higher education institutions, job satisfaction, work performance

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Ka sigurnom univerzitetu iz muške perspektive: studentska percepcija o seksualnom uznemiravanju i ucenjivanju

Istraživanja percepcije i izloženosti seksualnom uznemiravanju i ucenjivanju među studentskom populacijom imaju jasno izraženu rodnu dimenziju. Ovde se pažnja



usmerava na istraživanje muške perspektive i iskustava o navedenom problemu. U radu su predstavljeni i analizirani rezultati dve fokus-grupne diskusije u kojima je učestvovalo 16 studenata na Filozofskom fakultetu i Fakultetu sporta i fizičkog vaspitanja Univerziteta u Novom Sadu. Diskusije su realizovane sa ciljem analize percepcije i (ne)posrednog iskustva seksualnog uznemiravanja i ucenjivanja. Učesnici diskusija pokazali su visok nivo zainteresovanosti za razgovor o problematizovanoj temi, iz čega su proizašli brojni odgovori o percepciji zastupljenosti i (ne)posrednom iskustvu seksualnog uznemiravanja i ucenjivanja u širem društvenom, a potom i akademskom kontekstu. Fokus-grupne diskusije realizovane su u skladu sa dogovorenim protokolom. Inicijalno stablo kodova je takođe pratilo blokove protokolarnih pitanja. Glavni čvorovi su bili: „uverenja i znanja studenata o seksualnom uznemiravanju i ucenjivanju”, „saznanja o iskustvima drugih studenata/studentkinja sa seksualnim uznemiravanjem i ucenjivanjem”, „percepcija o zastupljenosti takvih iskustava u (van)akademskoj zajednici”, kao i „očekivanja od institucionalne podrške žrtvama seksualnog uznemiravanja i ucenjivanja”. Prikupljeni audio podaci su transkribovani, a potom analizirani u skladu sa stablom kodova. Rezultati diskusija pokazuju da studenti prepoznaju problem, uz navođenje primera “lakših” i “težih” oblika tog ponašanja. Raspon njihovih odgovora kreće se od neprimerenog ponašanja prema devojkama (npr. merkanje (i bez znanja devojaka tome), dobacivanje, neumesna gestikulacija), preko deljenja fotografija/video zapisa putem društvenih mreža, do neželjenih fizičkih kontakata i nasilnog ponašanja. Kao „tipičnu žrtvu” studenti opisuju fizički atraktivnu devojku koja se „provokativnije oblači” i “ne postavlja jasne granice u komunikaciji” što ukazuje na to da se objekt seksualnog nasilja među studentima nedvosmisleno percipira kroz prizmu rodnih stereotipa. Naglašavaju, sa druge strane, da tipičan predator ne postoji, iako je to češće muškarac. Gotovo svi učesnici diskusija svedoče o poznanstvu sa osobama koje su bile žrtva seksualnog uznemiravanja i ucenjivanja. Studenti uočavaju tendenciju „normalizacije” te društvene pojave u širem društvenom kontekstu, istovremeno tvrdeći da mladi na tu temu nisu dovoljno informisani ni u domenu privatnog života, niti kroz formalno obrazovanje. Ipak, urbane sredine smatraju se otvorenijim i pogodnijim za razvoj svesti o tom problemu. Sledstveno tome, smatraju da je među studentima neophodna edukacija o definisanju i pojavnim formama seksualnog uznemiravanja i ucenjivanja. Kao poželjne edukatore vide svoje vršnjake. Ipak, veruju da bi postojanje stručne službe (smeštene van prostorija fakulteta) bilo od pomoći u procesu prevencije, podrške i pomoći žrtvama.

Ključne reči: seksualno uznemiravanje i ucenjivanje, tipična žrtva, tipičan predator, studenti, Univerzitet u Novom Sadu.

Zahvalnica: Istraživanje je realizovano uz podršku Pokrajinskog sekretarijata za visoko obrazovanje i naučnoistraživačku delatnost



Towards a safe university from a male perspective: student perceptions of sexual harassment and blackmail

Research on the perception and exposure to sexual harassment and blackmail among the student population has a clearly expressed gender dimension. Here, the focus is on exploring the male perspective and experiences on the mentioned problem. This study presents the results of two focus group discussions in which 16 students at the Faculty of Philosophy and the Faculty of Sport and Physical Education of the University of Novi Sad participated. The discussions were conducted with the aim of analyzing the perception and (in)direct experience of sexual harassment and blackmail. Participants showed a high level of interest in talking about the topic, from which numerous answers emerged about the perception of representation and (in)direct experience of sexual harassment and blackmail in the wider social and then academic context. The discussions were conducted in accordance with the agreed protocol. The initial tree of codes also followed the blocks of protocol questions. The main nodes were: “students’ beliefs and knowledge about sexual harassment and blackmail”, “knowledge about the experiences of other students with sexual harassment and blackmail”, “perception of the prevalence of such experiences in (non)academic community” and “expectations from institutional support for victims of sexual harassment and blackmail”. The audio data were transcribed and analyzed in accordance with the tree of codes. The results show that students understand the problem, while giving the examples of “lighter” and “heavier” forms of such behavior. The range of their responses ranges from inappropriate behavior towards girls (e.g. checking out (even without girls’ knowledge), catcalling, inappropriate gestures), to sharing photos/videos via social networks, to unwanted physical contacts and violent behavior. As a “typical victim”, they describe a physically attractive girl who is “provocatively dressed” and “does not set clear boundaries in communication”, which indicates that the object of sexual violence among students is unambiguously perceived through the prism of gender stereotypes. However, they emphasize that there is no typical predator, although it is more often a man. Almost all participants testify to acquaintances with people who have been victims of sexual harassment and blackmail. Students observe a tendency of “normalization” of this social phenomenon in the wider social context while claiming that young people are not sufficiently informed on this topic either in the domain of private life or through formal education. However, urban environments are considered more open and suitable for developing awareness of this problem. They believe that education on defining and manifesting forms of sexual harassment and blackmail is necessary among students. They see their peers as desirable educators. They also believe that the existence of a professional service (located outside the faculty premises) would be helpful in the process of prevention, support, and assistance to victims.



Keywords: sexual harassment and blackmail, typical victim, typical predator, students, University of Novi Sad.

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Pritisak vršnjaka i upuštanje u seksualno uznemiravanje na internetu: medijacioni efekat implicitnih uverenja srednjoškolaca o seksualnom onlajn uznemiravanju

Sprovedeno istraživanje predstavlja deo internacionalne deShame studije koja, među brojnim aspektima seksualnog uznemiravanja, u fokusu razmatranja ima i psihološke i socijalne činioce upuštanja u seksualno uznemiravanje mladih na internetu. Shodno tome, istraživanje pretenduje da ispita relacije između vršnjačkog pritiska i tendencije ka upuštanju u seksualno onlajn uznemiravanje, sa posebnim osvrtom na medijacionu ulogu implicitnih uverenja srednjoškolaca o motivima ovog vida perptracije.

Istraživanje je sprovedeno na uzorku od 2950 učenika prvih i trećih razreda srednjih škola iz 16 školskih uprava na teritoriji Republike Srbije (53.7% ispitanika ženskog pola). Za merenje istraživačkih varijabli korišćene su odgovarajuće subskale iz srpskog prevoda Upitnika seksualnog uznemiravanja na internetu, koji je konstruisan u inicijalnoj fazi deShame studije. Pre sprovođenja glavnih statističkih analiza obavljena je eksplorativna faktorska analiza subskale implicitnih uverenja o motivima seksualnog onlajn uznemiravanja, kojom su izdvojene dve dimenzije: Seksualno uznemiravanje kao instrumentalni čin (nanošenje štete drugome, ostvarivanje nadmoći i popularnosti) i Seksualno uznemiravanje kao nepromišljeni konformistički čin (podleganje uticaju vršnjaka, bez namere povređivanja drugih).

U prvom koraku hijerarhijske regresione analize ustanovljeno je da vršnjački pritisak ostvaruje značajan ($R^2 = .04$; $F(1.2948) = 134.50$; $p < .01$) i pozitivan efekat ($\beta = .21$; $p < .01$) na upuštanje u seksualno onlajn uznemiravanje. U drugom modelu ustanovljeno je da obe dimenzije implicitnih uverenja ostvaruju značajan medijatorski efekat ($\Delta R^2 = .08$; $F(2.2946) = 134.22$; $p < .01$) u relaciji između vršnjačkog pritiska i upuštanja u onlajn seksualnu perptraciju. Preciznije rečeno, Seksualno uznemiravanje kao instrumentalni čin ostvaruje negativan efekat na upuštanje u onlajn seksualnu perptraciju ($\beta = -.09$; $p < .01$), dok Seksualno uznemiravanje kao nepromišljeni konformistički čin ostvaruje



pozitivan efekat na pomenuti kriterijum ($\beta = .33$; $p < .01$). Dodatnim analizama je utvrđeno da prediktor ostvaruje značajan ($R^2 = .01$; $F(1.2948) = 17.52$; $p < .01$) i pozitivan efekat na prvu dimenziju implicitnih uverenja ($\beta = .07$; $p < .01$), odnosno značajan ($R^2 = .02$; $F(1.2948) = 61.18$; $p < .01$) i pozitivan efekat na drugu dimenziju ($\beta = .14$; $p < .01$). Rezultati govore u prilog tome da i pored podložnosti vršnjačkom pritisku, adolescenti koje karakterišu izraženija uverenja o seksualnom uznemiravanju kao povređujućem činu, pokazuju slabiju tendenciju ka seksualnom uznemiravanju na internetu. Sa druge strane, podložnost vršnjačkom pritisku, uz istovremeno izraženija uverenja o seksualnom uznemiravanju kao opšteprihvaćenom, bezazlenom ponašanju, doprinosi inklinaciji ka seksualnom uznemiravanju drugih putem interneta.

Ključne reči: vršnjački pritisak, implicitna uverenja, seksualno uznemiravanje na internetu
Zahvalnica: Istraživanje je sprovedeno u saradnji sa Centrom za nestalu i zlostavljaju decu.

Peer Pressure and Engaging in Online Sexual Harassment: The Mediating Effect of High School Students' Implicit Beliefs About Online Sexual Harassment

The current research is part of the international deShame study, which, among numerous aspects of sexual harassment, focuses on the psychological and social factors involved in sexual harassment of adolescents on the Internet. Accordingly, the research aims to examine the relationship between peer pressure and the tendency to engage in sexual online harassment, with special reference to the mediating role of high school students' implicit beliefs about the motives of this type of perpetration.

The research was conducted on a sample of 2950 students attending the first and third grades of secondary schools from 16 school administrations in the Republic of Serbia (53.7% of respondents were female). Appropriate subscales from the Serbian translation of the Internet Sexual Harassment Questionnaire, which was constructed in the initial phase of the deShame study, were used to measure the research variables. Before conducting the main statistical analyses, an exploratory factor analysis of the subscale of implicit beliefs about the motives of online sexual harassment was performed. Within this analysis, two dimensions were distinguished: Sexual harassment as an instrumental act (causing harm to others, achieving domination and popularity) and Sexual harassment as a thoughtless conformist act (submitting to peer influence, without the intention of harming others).

In the first step of the hierarchical regression analysis, it was found that peer pressure has a significant ($R^2 = .04$; $F(1.2948) = 134.50$; $p < .01$) and positive effect ($\beta = .21$; $p < .01$) on engaging in online sexual harassment. In the second model, it was found that both dimensions of implicit beliefs achieve a significant mediating effect ($\Delta R^2 = .08$; $F(2.2946) = 134.22$; $p < .01$) in the relationship between peer pressure and engaging in online sexual



perpetration. More precisely, Sexual Harassment as an instrumental act has a negative effect on engaging in online sexual perpetration ($\beta = .09$; $p < .01$), while Sexual Harassment as a thoughtless conformist act has a positive effect on the mentioned criterion ($\beta = .33$; $p < .01$). Additional analysis revealed that the predictor achieves a significant ($R^2 = .01$; $F(1,2948) = 17.52$; $p < .01$) and positive effect on the first dimension of implicit beliefs ($\beta = .07$; $p < .01$), that is, a significant ($R^2 = .02$; $F(1,2948) = 61.18$; $p < .01$) and a positive effect on the second dimension ($\beta = .14$; $p < .01$). The results suggest that despite being susceptible to peer pressure, adolescents who are characterized by more pronounced beliefs about sexual harassment as a hurtful act show a weaker tendency towards sexual harassment on the Internet. On the other hand, susceptibility to peer pressure, along with more pronounced beliefs about sexual harassment as a generally accepted, harmless behavior, contributes to the inclination towards sexual harassment of others via the Internet.

Keywords: peer pressure, implicit beliefs, sexual harassment on the Internet

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Individualni, vršnjački, porodični i školski rizični faktori neželjenog sekstinga

Iako istraživanja sekstinga nisu novost u većini zemalja Zapadne Evrope, u Srbiji su ona još uvek u povoju. Problem neželjenog sekstinga kod adolescenata je posebno važna oblast istraživanja (i prakse) pošto su sa njime povezani problemi u socijalnom funkcionisanju mladih (pogotovo onih koji su žrtve sekstinga), ali i poteškoće u mentalnom zdravlju, ukoliko je problem posebno izražen i dugotrajan. Naročito zabrinjavaju podaci koji pokazuju da je neželjeni seksting uglavnom sankcionisan samo kada je samo jedan od učesnika maloletan, dok u situacijama kada u ovom vidu uznemiravanja učestvuju dve maloletne osobe, sistem nema adekvatan odgovor.

Cilj ovog istraživanja ispitivanje rizičnih faktora za vršenje i trpljenje neželjenog sekstinga kod adolescenata. Uzorak je činilo 576 učenika srednjih škola (71.4% ženskog pola) s teritorije Vojvodine, uzrasta od 15 do 19 god. U hijerarhijskoj regresionoj analizi u prvom koraku su kao prediktori uvedeni pol, uzrast, seksualno iskustvo i partnerski status, u drugom koraku su uvedeni individualni faktori - prekomerna upotreba društvenih mreža, sklonost ka onlajn rizičnom ponašanju, sklonost ka digitalnom nasilju i viktimizaciji, a u



trećem bloku uvedeni su socijalni faktori – vršnjačke norme u vezi s digitalnim nasiljem i sekstingom, roditeljska medijacija i kontrola i školska klima.

Skлонost ka vršenju neželjenog sekstinga je objašnjena s 17.3% varijanse, a značajni prediktori u finalnom modelu su onlajn rizično ponašanje ($\beta = .11$), sklonost na digitalnom nasilju ($\beta = .25$) i vršnjačke norme ($\beta = .13$) koje ukazuju na veću toleranciju digitalnog nasilja i sekstinga. Kada se sagledaju doprinosi po blokovima prediktora, značajne doprinose ostvaruje i seksualno iskustvo ($\beta = .12$), u smeru da veću sklonost ka neželjenom sekstingu imaju adolescenti koji su imali seksualno iskustvo i prekomerna upotreba društvenih mreža ($\beta = .09$), u pozitivnom smeru. Viktimizacija neželjenim sekstingom je objašnjena s 13.2% varijanse, pri čemu u finalnom modelu značajnu predikciju imaju pol (ženski, $\beta = .12$), rizično onlajn ponašanje ($\beta = .17$), sklonost ka digitalnom nasilju ($\beta = .12$) i nedostatak roditeljske kontrole ($\beta = -.08$). Pored finalnog modela, u analizama po blokovima značajni udeo ima i seksualno iskustvo ($\beta = .10$), ponovo u smeru u kojem adolescenti koji su imali seksualno iskustvo češće su žrtve neželjenog sekstinga. Detaljnom analizom uloga u digitalnom nasilju dobijeno je da nasilnici-žrtve češće iniciraju neželjeni seksting ($F(572,3) = 13.30, p < .001$), te da su žrtve i nasilnici-žrtve češće žrtve neželjenog sekstinga ($F(572,3) = 10.27, p < .001$). Može se zaključiti da su rizično onlajn ponašanje i digitalno nasilje dosledni rizični faktori neželjenog sekstinga, dok vršnjački odnosi više oblikuju vršenje neželjenog sekstinga, a roditeljska kontrola iskustvo žrtve neželjenog sekstinga.

Ključne reči: seksting, vršnjačko nasilje, roditeljska medijacija, roditeljska kontrola, digitalno nasilje

Zahvalnica: Rad je nastao u sklopu projekta „Socio-psihološki činioci rizične upotrebe društvenih mreža kod adolescenata u Vojvodini“ koji je finansirao Pokrajinski sekretarijat za visoko obrazovanje i naučnoistraživačku delatnost.

Individual, peer, family, and school risk factors for unwanted sexting

Although sexting research is not new in most Western European countries, it is still in its infancy in Serbia. The problem of unwanted sexting among adolescents is a particularly important area of research (and practice) since it is associated with problems in the social functioning of young people but also difficulties in mental health, if the problem is particularly pronounced and long-lasting. Of particular concern are the data showing that unwanted sexting is generally sanctioned only when only one of the participants is a minor, while in situations where two minors participate in this type of harassment, the system does not have an adequate response.

The aim of this research was to examine the risk factors for committing and enduring unwanted sexting among adolescents. The sample consisted of 576 high school students (71.4% female) from the territory of Vojvodina, ages 15 to 19. In the hierarchical regression analysis, gender, age, sexual experience and partner status were introduced as predictors in the first step, individual factors were introduced in the second step -



excessive use of social networks, propensity for online risky behavior, propensity for digital violence and victimization, and in the third block social factors were introduced - peer norms regarding digital violence and sexting, parental mediation and control, and school climate.

The tendency to engage in unwanted sexting is explained with 17.3% of the variance, and the significant predictors in the final model are online risky behavior ($\beta = .11$), tendency towards digital violence ($\beta = .25$) and peer norms ($\beta = .13$) indicating greater tolerance for digital violence and sexting. When looking for the contributions in blocks of predictors, significant contributions are made by sexual experience ($\beta = .12$), in the direction that adolescents who have had sexual experience and excessive use of social networks ($\beta = .09$) have a greater tendency towards unwanted sexting, in a positive direction. Victimization by unwanted sexting was explained with 13.2% of the variance, where in the final model gender (female, $\beta = .12$), risky online behavior ($\beta = .17$), propensity towards digital violence ($\beta = .12$) and lack of parental control ($\beta = -.08$) were significant predictors. In addition to the final model, in the analyzes by blocks, sexual experience has also been a significant predictor ($\beta = .10$), again in the direction in which adolescents who have had sexual experience are more often victims of unwanted sexting. A detailed analysis of roles in digital violence revealed that bullies-victims more often initiate unwanted sexting ($F(572,3) = 13.30, p < .001$), and that victims and bullies-victims are more often victims of unwanted sexting ($F(572,3) = 10.27, p < .001$). It can be concluded that risky online behavior and digital violence are consistent risk factors for unwanted sexting, while peer relationships shape the perpetration of unwanted sexting, and parental control shapes the experience of victims of unwanted sexting.

Keywords: sexting, digital violence, parental mediation, parental control, peer violence

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A CROSS-CULTURAL APPROACH TO CYBERBULLYING: ISSUES & CHALLENGES

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Online violence among students at the University of Belgrade: results of the UniSafe survey

Online violence research has exploded in recent years, but has largely focused on cyberbullying behaviours in primary and middle schools. Empirical research on online violence among students in higher education is much rarer not only in Serbia, but also worldwide. Given the negative consequences of online violence on young people's psychophysical health and well-being, it is important to know how many university students have experienced online violence with persons associated with their institution.

The aim of this paper was to determine the prevalence and frequency of online violence among students in an academic context, taking into account gender and sexual orientation. Online violence can take many forms such as cyberbullying, online sexual abuse, non-consensual distribution of sexual images and texts.

The survey is part of the international UniSafe project – the largest of its kind in Europe in the research sector, which investigates the prevalence of gender-based violence at universities and scientific research institutions in Europe. Quantitative data was collected through an online survey conducted in March and April 2022. The sample consisted of 2175 students from the University of Belgrade (76% female and 24% male; 87% heterosexual and 13% LGBT+).

The results indicate that the overall prevalence of online violence among students is 5%, among members of the LGBT+ population – 9%, heterosexuals – 4%, female students – 6%, male students – 4%. When it comes to specific forms of victimization, unlawful photographing or recording was reported by 2% of female and 3% of male and 2% LGBT+, 2% heterosexual; bullying, threats and attacks online was reported by 3% of female and



2% of male; 6% LGBT+, 2% heterosexual; offensive or threatening comments on learning or collaborative work platforms was reported by 2% of female and 1% of male; 4% LGBT+, 2% heterosexual.

About half of the respondents (42%) had been a victim of online violence once, almost a third (30% students) 2-3 times and almost a fifth (15% of students) 6 times or more. No statistically significant differences in exposure to online violence were found in relation to gender and sexual orientation.

Since starting their studies, 11% of students have noticed someone has been harassed online (e.g. via social media, email, messages or virtual learning platforms). More than two thirds (69%) reported that the victim was one or more girls, and about one fifth (23%) that it was one or more young men or a group of girls or young men.

Compared with some previous research on online violence in Serbia, cyberbullying is less prevalent among university students than among high school students. The results of this study provides information on online violence at the university level, which has the potential to inform the development of more appropriate policies that include preventive and intervention measures.

Keywords: online violence, university students, gender, sexual orientation, UniSafe project



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Bystander Behaviour Online among Young People in Ireland

The importance of bystanders in traditional offline bullying has been widely researched, but there is a gap in cyberbullying research. Therefore, this research aims to explore online bystander behaviour among young people. A sample consisting of 225 post primary students in Ireland completed an online survey including questions regarding participants' use of the internet and digital devices as well as their behaviour when witnessing cyberbullying. The Behaviour during cyberbullying episodes scale developed by Pozzoli & Gini (2020) was also included to explore the frequency of behaviours from four profiles of engagement in cyberbullying: Cyberbullying others, suffering Cybervictimization, Cyber-Defending others, and being a Cyber-Passive Bystander.

The key quantitative research found evidence that victimization online is prevalent with 45.8% of participants reporting that they had witnessed cyberbullying at least once over the last number of months. The most frequent behaviour identified related to direct



verbal abuse (65% of the bystanders have witnessed name calling and 64.1% mockery or insults) and occurs most often on social media (58.3%). Cyberbullying is mostly initiated and perpetuated by strangers (31.1%) or classmates of the target (28.2%). Another important finding of note is that 54.6% of those who witnessed a cyberbullying incident reported it to someone, and that in most cases that someone was a parent or a friend, being the first one reported by 29.1% of bystanders, and the last one by 28.2%. However, the responses of the whole sample to the Behaviour during cyberbullying episodes scale showed that cyber-defending targets were more common than any other role of involvement in cyberbullying.

Responses to open-ended questions showed that when bystanders take part in the abusive behaviour, they tend to either justify that the target was in some way deserving of the cyberbullying, that they were acting due to peer pressure, or that they perceived (cyber)bullying as normal behaviour. When asked about additional support to help bystanders intervene, a minority of the sample feels nothing can be done about (cyber)bullying, some students suggest technical in-app improvements, receiving training and involving the schools. Some comments also hint of the need for awareness campaigns and information about how to report in the platforms to be easier to access. Finally, when asked what advice they would give to those who experience bullying, the majority of participants recommended blocking perpetrators, reporting on the platform, and telling a trusted adult or a friend.

Given that bystanders are present in most cyberbullying episodes and their potential role in perpetuating or ending the victimization, intervention and prevention efforts should target them. Future antibullying programmes could focus on helping bystanders noticing (cyber)bullying and perceiving it as a situation that needs to be addressed given the impact it has on targets.

Keywords: Bystander; Online behaviour; Adolescents; Prevention



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The prior experience of cyber-violence and some aspects of psychological well-being as predictors of experiencing cyber-violence

The aim of this research was to explore the longitudinal contribution of self-esteem and indicators of depression, anxiety, and stress level on the dimensions of experiencing cyber-violence measured at two points that were separated by one year. The contributions of the same dimension of cyber-violence measured at the first (initial) time



point of measurement, as well as the contributions of predictor variables measured at the same time as the criterion, were controlled. The research was conducted in February 2021 and in February 2022 (data collected at the midpoint in April 2021 is not included in this report). Due to the pandemic situation, the research was carried out virtually, with 129 participants aged 15 to 19 in February 2021 ($M = 17.38$; $SD = 1.22$). In terms of gender distribution, there were 26 males (20.2%) and 103 females (79.8%). These participants participated in all three time points comprising 7.5% of the 1725 participants involved in the initial measurement point. For this paper, their responses to The Committing and Experiencing Cyber-Violence Scale—2021, Rosenberg's Self-Esteem Scale, and Depression Anxiety Stress Scales – DASS 21 were analyzed.

Given that previous research has established that experiencing cyber-violence is not a one-dimensional construct and encompasses multiple dimensions, namely Shaming, Information manipulation, Hate speech, Technology abuse, and Information sharing, our study aimed to determine the extent to which the observed variables contributed to explaining the variance in these criteria.

Therefore, five hierarchical regression analyses were conducted for each dimension of the experienced violence (age, gender and the measure of the same dimension of experiencing violence at the first measurement point were controlled). The results of the hierarchical regression analysis showed that, for each dimension of the experienced cyber violence, the best predictor of the experienced cyber-violence at the second point of measurement is the same dimension of the experienced violence at the first point of measurement. Self-esteem and the level of depression, anxiety, and stress experienced by the participants at the first point of measurement do not predict the violence experienced at the second point of measurement. Furthermore, a significant predictor of all dimensions of experienced violence (except for experiencing violence through information sharing) is the anxiety experienced by the participants at the second measurement point. Surprisingly, the contribution of self-esteem was not established. The models explained between 20% (for experienced information sharing) to 50% (for experienced shaming) of the variance in the criteria. The results do not support the assumption that a person's low self-esteem, anxiety, depression, and stress can make that person more susceptible to experiencing cyber-violence after one year. What is noticeable is that those who experience violence are currently more anxious.

Keywords: experiencing cyber-violence, self-esteem, depression, anxiety, and stress



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Cyberbullying Victimization and Psychological Distress Among Adolescents and Young Adults of India: Mediating role of Difficulties in Emotion Regulation

Past research has highlighted the negative consequences of cyberbullying victimization. Due to the relative adaptiveness of specific emotion regulation strategies for dealing with negative emotions, some may be more effective in coping with cyberbullying victimization. However, little is known about the role of difficulties in emotion regulation between cyberbullying victimization and adolescents' and young adults' psychological distress. The first aim of this study is to determine the prevalence of cyberbullying victimization among Indian high school and college students. The second aim is to determine the mediation role of emotion regulation in relationships between the cyberbullying victimization and psychological distress.

The current study included 525 students (49.33% female) aged 13-24 ($M = 18.26$) from across ten states in India. Participants responded to measures related to the European cyberbullying intervention project questionnaire (ECIPQ), Difficulties in Emotion Regulation Scale (DERS-18) and General Health Questionnaire (GHQ-12). They also provided information about their family type (nuclear/joint), school type (Co-education/Girls' School/Boys' School), privacy settings on social media (public/private), medium of accessing their social media accounts and details about their social media usage which included questions related to their number of accounts on a particular social media.

The results showed that the prevalence of cyberbullying victimization was 25.52%. There was a significant positive relation between cyberbullying victimization and difficulty in emotional regulation ($r = 0.21, p < 0.001$); cyberbullying victimization and psychological distress ($r = 0.14, p < 0.01$). The bootstrapped mediation analysis revealed the relationship between cyberbullying victimization and psychological distress was completely mediated by difficulty in emotional regulation ($b = 0.08, SE = 0.02, p < 0.001, 95\% BC-CI: 0.05, 0.12$).

The study highlighted that the preventive strategies identifying the factors that make a person more vulnerable to cybervictimization would benefit if they include education on emotion regulation strategies.

Keywords: cybervictimization, emotion regulation, psychological distress, cyberbullying

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The role of social media addiction, and social settings on cyberbullying

Excessive use of social media by teenagers has led to the fact that cyberbullying is becoming a major concern. Previous research has shown that the risk factors for cyberbullying include peer influence, demographic characteristics (mainly, male gender), and a range of psychological characteristics. There is evidence that addiction to social media or problematic use of social media is associated with cyberbullying perpetration. Additionally, some characteristics of the social environment, such as relationships with peers or parental mediation of social media use, may also contribute to cyberbullying. Most of the previous research has studied social and environmental variables separately. In this study, we examine the additional effect of various social settings (peer relationships, school climate, and parental mediation of social media use) on cyberbullying.

The sample includes 659 adolescents, with 59% of them being female. Their age ranges from 16 to 18 ($M = 16.7$, $SD = 0.69$). The following questionnaires were used: the European Cyberbullying Intervention Project Questionnaire, the Bergen Social Media Addiction Scale (BSMA), a short form of the Generalized Perception-of-Peers Questionnaire, and the School Climate (SC) and Parental Mediation (PM) scales, both from the EU Kids Online project.

Two hierarchical regression analyses were conducted for cybervictimization (CV) and cyberaggression (CA). On the final step, both models were significant, explaining 19.5% and 16.5%, respectively. Models indicate that social media addiction is a significant predictor for CV ($b = 0.30$, $p < 0.001$) and CA ($b = 0.28$, $p < 0.001$). Among social settings, only peer perception was revealed as a predictor for CV ($b = -0.22$, $p < 0.001$) and CA ($b = -0.19$, $p < 0.001$), adding a small amount of the explained variance - 5% for CV and 3% for CA. Gender (male) also remained a significant predictor for CV ($b = -0.11$, $p < 0.001$) and CA ($b = -0.21$, $p < 0.001$). In line with previous studies, our findings show that media addiction is a significant predictor of cyberbullying. We hypothesized that school climate, parent participation in social media use, and peer relations might decrease cyberbullying. However, in our study only peer relations explained at least part of the variance in cyberbullying. It was true mainly for the male respondents. Overall, disrupted relationships with classmates, coupled with the addiction to social media, may contribute to increased instances of cybervictimization and cyberaggression. As a potential practical implication, enhancing offline teenagers' relationships with their



peers could be discussed. For example, a comprehensive school counseling program that addresses cyberbullying and social media addiction prevention could be implemented.

Keywords: social media addiction, cyberbullying, peer relations, school climate and parental mediation



PERSONALITY AND NATURAL LANGUAGE PROCESSING AN OPEN ROAD FROM DICTIONARIES TO TWITTER

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Anxiety, depression, and linguistic corpora

Network approaches to self-report data on anxiety, depression, and distress have suggested that markers of non-specific features related to the triggers of elevated mental excitability tend to mediate between the descriptors of anxiety and depression. Such a pattern of relations has been observed in multiple cultures and languages, such as English, Italian, Croatian, and Serbian. In this study, we examined whether similar structures of relations among the markers of mental states and disorders can be observed in natural written language.

To address this issue, we extracted the collocates of the terms „anxious“ and „depressed“ in four languages: English, Italian, Croatian, and Serbian. The analyses were conducted using the openly available linguistic corpora - ukWac (English, 1,802,927,963 words), itWac (Italian, 1,593,977,091 words), hrWac (Croatian, 1210021198 words), and srWac (Serbian, 476,888,297 words). Collocation searches were performed using generic terms “anxious” and “depressive” in each of the respective languages (“anxious”/“depressive” in English, „ansioso“/“depresso“ in Italian, „anksiozan“/“depresivan“ in Croatian and Serbian) attempting to extract adjectives that occur most frequently with either of them or both. To facilitate our insight into semantic relations between the generic descriptors of anxiety and depression and their collocates, we performed basic network analyses, whereby undirected graphs were created based on adjacency matrices containing frequencies of co-occurrences of the collocates and generic terms.

Sets of forty-three to one-hundred and one adjectives were extracted for the four languages. The results revealed that in Italian, Serbian, and (less clearly) Croatian languages sets of terms describing non-specific mental and physiological states related to worry, tension, and distress, are positioned between the specific collocates of the descriptors of anxiety and depression. The results from the English source material



point to less transparent segmentation into „specific“ and „non-specific“ descriptor fields.

In general, the results suggest that the semantic relations based on the written natural language bear striking similarities to the results obtained using self-report measures, warranting further replication studies in this field.

Keywords: anxiety, depression, collocations, natural language processing



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Exploring personality structure from Twitter data: a latent semantic analysis

Over the past decade, Twitter has become one of the valuable social media platforms for collecting personality information. The study aims to explore the structure of personality descriptors in the form of adjectives by implementing a natural language processing technique. The data were collected from the Serbian Twitter corpus („Tweet-sr“ available on Clarin website; Ljubešić et al., 2017), which resulted in roughly 10000 tweets. Latent semantic analysis (LSA) and word embeddings were used to see patterns of personality adjective occurrence and their co-occurrence with other terms in extracted tweets (i.e., representing each adjective with a vector, and therefore creating a vector space). 383 personality adjectives obtained in a psychological study in Serbian language were selected for the analyses (De Raad et al., 2018). The results yielded clusters of adjectives varying in size: „normal“, „boring“, „cold“, „beloved“, „interesting“, and „emotional“ being the most frequent adjectives mentioned in tweets. Personality adjectives' co-occurrence with the other types of words (e.g., verbs, nouns, and even some adjectives), indicates that the language vocabulary used on Twitter is rather simplistic and mainly depends on the broader context and semantics of the included adjectives and related terms. Moreover, the results point out the emergence of interpersonal themes among the selected tweets.

Keywords: personality structure, personality adjectives, Twitter, latent semantic analysis, word embeddings



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Open-ended situation descriptions in light of natural language processing

Open-ended situation descriptions have seldom been examined in personality psychology. Hence the understanding of semantic and pragmatic aspects of situation-related talk remains superficial. This study examines the semantic structure of the situation-related descriptions in the Serbian language while simultaneously demonstrating the feasibility of natural language processing (NLP) as the chosen methodological and analytic strategy.

This study included adult participants from Serbia, whose data was gathered during the International Situations (ISP) project, in the Serbian language. The participants' sample included students (N = 185, age range 18 – 26 years, mean = 19.72, SD = 1.26; 86% women) and community samples (N = 139, age range 16 – 63 years, mean = 28.64, SD = 13.22, 61.87% women.) This study comprised two stages. In Stage One, we analyzed the merged open-ended responses to three questions related to the participants' situational experience (what happened, where, and who was present.) After the data preparation (lemmatization and removal of stop-words) a co-word analysis was performed respectively on student and community samples. Only unigrams (single words) were analyzed. Cluster analyses were carried out to explore word grouping after forming the word co-occurrence frequency matrices (also known as feature-co-occurrence matrices). In Stage Two, the clusters' relations to the Big Five domains and facets were examined, using The Big Five Inventory-2 (BFI-2). This included deriving "word cluster scores" (average sums of frequencies per participant) and calculating Pearson correlations between the word clusters and personality traits.

In the student sample, six clusters describe patterns of situational features tentatively named as (1)going out, (2)socializing, (3)staying at home, (4)school commitments, and (5)time with family, while in the community sample five clusters were provisionally named (1)traveling/commuting, (2) socializing with friends, (3) spending quality time at home, (4) going out with friends or family, and (5)school or work commitments. Observing the personality domains, in the student sample, correlations were found between cluster 4 and conscientiousness ($r = -.22, p < .05$), cluster 4 and openness ($r = -.14, p < .05$), and cluster 3 and Negative Emotionality ($r = .24, p < .05$). In the community sample, cluster 4 scores correlated with Agreeableness ($r = -.27, p < .05$) and Extraversion ($r = .16, p < .05$). The correlation coefficients range between small and medium, and point to consistent cross-sample (community and student samples)



patterns of correlations between the descriptions of social situations and activities with the corresponding personality dimensions. Hence the interpersonal domain currently seems to be the most promising starting point for natural language research in situation studies.

Keywords: situations, natural language processing, Big Five



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Mapping personality-descriptive adjectives in Serbian 21-century and 19-century dictionaries

Exploration of personality descriptors in historical and archival documents is an emerging research stream in personality psychology. Comparing descriptor structures extracted from historical and contemporary sources may provide information on the development of personality-talk and the relevance of traditional descriptors for today's personality-relevant discourse. To examine the structures of 19- and 21-century adjective descriptors, we conducted a pilot study with the following aims: 1) extract personality adjective descriptors from a 19-century Serbian dictionary; 2) to examine the status of 19-century descriptors in the contemporary personality lexicon; 3) to examine the structure of historical descriptors using a repository of 19-century Serbian prose (novels and stories available in public domain). As for the first task was accomplished using Vuk Karadžić's "Serbian Dictionary" (Srpski rječnik; 1852), by extracting each adjective whose dictionary description contained the term "man" ("čovjek"), in the generic meaning of "human", pertaining to both female and male genders in its lemmatized form. Using this conservative extraction procedure, thirty-one adjectives were extracted. As for the second task, we used the list of 1414 terms extracted in the third Serbian psycholexical study to map the historical descriptors to the network of contemporary adjectives. The openly available Serbian language repository srWAC was searched for a joint list of two sets of adjectives. A network analysis of the word co-occurrence matrix yielded twelve clusters comprising 751 out of 958 adjectives found in the repository. The results pointed to significantly higher degree centrality of historical terms compared to the remaining contemporary adjectives (median degree centrality was 15 for historical descriptors, compared to 3 for contemporary descriptors; Mann-Whitney U = 5760, $p < 0.001$, Rank biserial correlation 0.56). Analyzed separately,



historical descriptors were grouped in six clusters, reflecting mostly virtues, valence terms, and honesty. Regarding the third task, we searched a Sketch-Engine powered repository of Serbian 19th-century prose for a set of previously extracted historical personality descriptors. A network and cluster analysis of context-to-target terms (target terms being personality adjectives) yielded seven clusters comparable to those extracted in contemporary linguistic repositories. The results point to the pertaining relevance of the selected traditional personality descriptors in modern personality discourse and calls for more thorough future research aiming at describing the structure of more comprehensive sets of historical personality descriptors.

Keywords: lexical hypothesis, historical personality descriptors, natural language processing



THE POWER OF CONTEXT: UNRAVELING PSYCHOLOGICAL OUTCOMES IN DIVERSE SITUATIONS

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On the situational dependency of composite test scores: A case of an emotional reasoning measure

The study demonstrates how a particular class of structural equation models can be used to identify the portions of the observed variability in composite test scores that can be attributed to dispositional and/or to situation-related factors. Several single- and multi-construct structural equation models are formulated under the latent state-trait psychometric framework (LST; Steyer et al., 1992, 2015) which allows for the decomposition of the true score variance of any observed measure into the latent trait and latent state-residual components. The models are tested against the emotional reasoning data from a longitudinal study on early adolescents. The LST analyses to be presented are based on data collected at three time points, six and twelve months apart, using the Emotional Management Test on a sample of 353 elementary school students aged 10 to 15 years. There were 168 (47,6%) girls and 185 (52,4%) boys in the sample. In addition, the same LST framework is applied to examine the relationships between the Emotional Management component scores theoretically reflecting trait and situational/interactional effects, respectively, with measures of theoretically related constructs, that is, general cognitive ability and self-report empathy scores. Model parameters revealed in all the LST models examined indicated that the relative amount of situation-specific variance in the emotional management measure varied with time points and across gender-defined groups. Besides, conceptually expected and meaningful patterns of relationships were observed among the latent traits examined with fewer but significant correlations also found with specific latent state residual variables.

Keywords: emotional reasoning component scores, latent state-trait theory, situation-specific test score variance

Acknowledgement: University of Zagreb



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The Psychological Characteristics of Situations as Predictors of Creative Behavior

In recent years, the line between environmental and personal variables has become blurred through the study of subjective perception of the situation. While it is possible to calculate the interaction between individual characteristics and environmental variables, participants can be directly asked about their subjective perception of the situation. In our study, we were interested in how participants perceive situations in which they performed divergent or convergent tasks and compared them to the perception of a situation they had chosen from their lives. 250 students (69% female) completed four convergent tasks, two divergent tasks, the Kaufman Domains of Creativity Scale (K-DOCS), and the Big Five Inventory (BFI). After completing the convergent tasks, participants also rated their subjective perception of the situation during the performance on the "Situational Eight" DIAMONDS scale. They repeated the same for the divergent tasks. They were then asked to recall a creative situation from the past month, describe it, and also rate it on the "Situational Eight" DIAMONDS scale. Significant differences between the psychological profiles were found on six of eight dimensions. But when we compare them with some completely different situations (e.g. in sport), all three creative situations were perceived quite similarly, with high expression of duty, intellect, and positivity, and low obstacles and relevance for seeking a partner. Furthermore, we were interested in the extent to which creative behavior can be predicted based on the perception of the situation in addition to openness. In the case of divergent tasks, openness explained only 1.5% of the variance, while no aspect of subjective perception of the situation proved to be significant. In the case of convergent tasks, personality did not prove to be a significant predictor, but subjective perception of the situation explained 15% of the variability. Individuals who perceived the creative testing situation as intellectually challenging, more positive, and more sociable were more successful on convergent tasks. The subjective perception of a retrospectively evaluated creative situation also predicted differences in self-assessment of everyday creative behavior (14% after controlling for openness, which predicts 10%). Individuals who perceived the past creative situation as less unpleasant but, surprisingly, also as less pleasant, and with whom the potential partners were present, reported higher self-ratings on everyday creativity. Thus, the results indicate that subjective perception of the situation is important for success in creative tasks and that the way we perceive a particular situation can be controlled, at least in part, by instructions to develop a more creative mindset.



Keywords: psychological characteristics of situations, personality, creativity, situational Eight" DIAMONDS, everyday creativity

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Do You Feel What You See... or Vice Versa? Perception of Situational Characteristics and Momentary Affect

Situational eight DIAMONDS represent a measure of psychological aspects or interpretations of a situation the person is currently in. One aspect that could be related to those interpretations is the individual's momentary affective state, as they are operationalized as the person's subjective understanding of situations. The aim of the current study was to examine how ratings of these dimensions are associated with momentary positive and negative affective states, using experience sampling methodology. The sample consisted of 170 students ($M_{age} = 21.20$, $SD_{age} = 1.97$, 21.2% male), who were predominantly psychology students (83.5%). Situational DIAMONDS and current positive and negative affective states were assessed with one item each, on a 7-point rating scale. Data were collected using a mobile phone application, and participants reported their situational experience and momentary affect on fixed occasions four times a day, for eight consecutive days. The number of reports per participant ranged from 3 to 32 ($M = 22.12$, $SD = 6.59$), and the total number of analyzed reports was 3931. Perception of situational characteristics, as well as momentary affect, had sizeable variability within participants, which was larger than the variability between participants. When considering each situational characteristic separately, both at an aggregated level of analysis (i.e., situational perception and affect averaged across measurement occasions) and at a disaggregated level of analysis (i.e., using multilevel modeling with a person as a grouping variable) situational perception and momentary affect were considerably associated. To adjust for the shared variance between DIAMONDS dimensions, multilevel modeling was conducted to predict affect with all of them simultaneously, and person-level means were also included in analyses to control between person mean differences in situational perception. Even when the shared variance between DIAMONDS dimensions was controlled, momentary positive affect was significantly associated with six of them and momentary negative affect with four of them. Results of the present study indicate that perception of situational



characteristics and momentary affective states are far from independent, and point to the need of considering affect when measuring persons' view of a situation they are currently in.

Keywords: situational perception, DIAMONDS, affect, experience sampling



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Trait extraversion shapes the dynamic relationship between state extraversion and the situational perception of sociality

Building on dynamic theories of personality that emphasize intrapersonal variability as an important aspect of personality and the role of situational factors in shaping the momentary expression of personality, this research examined the dynamic interplay between state extraversion and subjective perceptions of sociality in specific situations. We used hierarchical continuous-time dynamic modeling to uncover the continuous-time processes underlying discrete measures of state extraversion and state sociality and tested a conditional model in which trait extraversion served as a time-independent predictor. The study involved a sample of 116 undergraduate students (89.7% female, mean age 20.2 years) and used a week-long experience sampling method (ESM) facilitated by a mobile app. Each participant received five daily prompts at randomly selected times. Upon receiving a prompt, participants provided responses regarding their current personality states and subjective perceptions of the ongoing situation. A total of 2,699 reports were analyzed, with an average of 23.3 reports per participant (SD = 6.9). In addition to contemporaneous effects, the results reveal autoregressive and cross-lagged effects across different time intervals, as well as covariate effects of trait extraversion on several model parameters. Higher levels of perceived sociality were contemporaneously associated with higher levels of state extraversion. Decreases in perceived sociality predicted subsequent increases in state extraversion, whereas increases in state extraversion predicted subsequent increases in perceived sociality. Both cross-lagged effects peaked at approximately 1.6 hours between measures and then gradually declined. Individuals higher in trait extraversion showed stronger negative cross-lagged effects of perceived sociality levels on subsequent state extraversion, as well as a stronger positive cross-lagged effect of state extraversion on subsequent perceptions of sociality. The autoregressive effects of state extraversion were stronger and longer lasting than the autoregressive effects of state sociality. While changes in state extraversion were more persistent for individuals higher in trait extraversion, changes in perceptions of sociality were less consistent with increasing



levels of trait extraversion. Overall, these results reveal complex person-situation transactions between state extraversion and situational perceptions of sociality that are significantly influenced by individuals' trait extraversion.

Keywords: Personality dynamics, continuous time modeling, experience sampling method, psychological characteristics of situations, extraversion, sociality

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DA LI SU SVI DOBRODOŠLI I ZAŠTO NE?
FAKTORI KOJI OBLIKUJU SOLIDARNOST
I POMOĆ IZBEGLICAMA

IS EVERYBODY WELCOME AND WHY NOT?
FACTORS SHAPING SOLIDARITY WITH
REFUGEES AND OUTGROUP HELPING

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In solidarity we stand! ...but not with everyone: Factors influencing selective solidarity with refugees

Differences in the public discourse on refugees from Ukraine and the Middle East, and in providing instrumental help itself, have been present in countries that have had the biggest influx of these refugee groups. In the context of Germany (N=995, M age 29, 48% women), we applied a 2x2 design, manipulating refugee's gender (male vs. female) and origin (Afghanistan vs. Ukraine), and measuring their effects on political solidarity. We also tested two mechanisms through which this influence is exerted, perceived threat and perceived similarity to the outgroup. Additionally, we introduced justice sensitivity as a moderator, thus modelling a moderated mediation (CFI = 0.85, RMSEA = .17; R² = 0.48). The model indicated that there are significant main effects of gender ($\beta=0.08$, $p < .001$) and origin ($\beta = 0.16$, $p < .001$), such that participants expressed less political solidarity towards refugees from Afghanistan and male refugees. However, there was no significant interaction effect ($\beta = -0.00$, $p > .05$). Perceived threat significantly mediated the relationship between gender ($\beta = 0.07$, $p < .001$), origin ($\beta = 0.08$, $p < .001$) and their combined effect on political solidarity (higher perceived threat is related to less solidarity; $\beta = -0.04$, $p < .001$). Afghan men were perceived as the most threatening of all four refugee groups ($F(3,991) = 33.7$, $p < .001$). Perceived similarity mediated only the main effects of origin ($\beta = 0.06$, $p < .05$) and gender ($\beta = 0.02$, $p < .05$; participants expressed more solidarity towards more similar refugees). When justice sensitivity was introduced into the model, it had a significant effect on the relationship



between perceived similarity and political solidarity ($\beta = 0.19, p < .01$), but not on the relationship between perceived threat and political solidarity ($\beta = -0.00, p > .05$). We explain these results with the relationship between ingroup projection and intergroup threat.

Keywords: political solidarity, perceived threat, perceived similarity, refugees

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Uticaj etničke bliskosti i statusa migrantskih grupa na stepen izazvane empatije kod domicilnog stanovništva

Istraživanja migracija predstavlja polje od velike praktične važnosti s obzirom na porast globalnih trendova seoba stanovništva. Potreba za ovakvim studijama posebno postoji u Srbiji koja je izložena intenzivnom uticaju migracija tek u prethodnoj deceniji. Cilj ovog istraživanja je da ispita koji faktori utiču na empatijsku reakciju domicilnog srpskog stanovništva prema migrantima. Korišćen je model koji pretpostavlja relevantne faktore u sociološkim odlikama migranata (njihova etnička udaljenost od domicilnog stanovništva i socio-ekonomski status), psihološkim odlikama domicilne populacije (individualni nivo empatije i sklonost ka socijalnoj dominaciji), kao i uticaj konteksta (da li stavovi prema migrantima variraju u odnosu na teškoću situacije u kojoj se nalaze). Drugim rečima, beleženi su skorovi empatijske reakcije prema migrantima u situacijama kada im se dešava nešto negativno ili pozitivno, kao i ukupna empatijska reakcija, te se variranje skorova posmatralo u odnosu na grupu migranata ili individualne razlike ispitanika. Analizom varijanse $F(3, 225) = 2.75, p = .044$ ukazano je da postoji razlike između četiri grupe migranata (izbeglice iz Istočne Evrope, ekonomski migranti iz Istočne Evrope, izbeglice sa Bliskog istoka i ekonomski migranti sa Bliskog istoka), a Bonferoni test je ukazao da postoji značajna razlika između izbeglice sa Bliskog istoka kao grupe koja pobuđuje najmanje empatije i izbeglice iz Istočne Evrope koji pobuđuju najviše. Nije bilo značajnih razlika između ekonomskih migranata $t(227) = .96, p = .338$ bez obzira na poreklo, što se može tumačiti kao nalaz da viši društveni i ekonomski položaj smanjuje empatiju prema bliskoj grupi migranata (iz Istočne Evrope), dok je povećava prema etnički udaljenim grupama (sa Bliskog istoka). Takođe interesantan nalaz pokazan analizom varijanse jeste i da razlike u empatijskoj reakciji postoje pre svega kada se migrantima dešava nešto pozitivno $F(3, 225) = 3.46, p = .017$, dok ne postoje razlike kada im se dešava nešto negativno $F(3, 225) = 1.59, p = .192$, odnosno kada su diskriminirani. Moguće je da procenjivanje etničke bliskosti ili ekonomske moći



postaje posebno relevantno za stavove prema migrantima kada oni dobijaju neke resurse koji pripadaju domicilnom stanovništvu, te se vide kao konkurenti. U prilog ovoj pretpostavci govori i značaj percepcije migranata kao saradljivih ($\beta = .43, p < .000$), koji se pokazao kao najbolji faktor regresionom analizom koja je predviđala totalne skorove ($R^2 = .30, F(3,225) = 31.80, p < .000$). Individualne razlike su takođe bile informativne kada je u pitanju predviđanje empatijske reakcije kao što su Sklonost ka socijalnoj dominaciji ($\beta = -.21, p < .000$) i Afektivna empatija ($\beta = .11, p < .025$).

Ključne reči: etnička pripadnost migranata, izbeglice, ekonomski migranti, orijentacija ka socijalnoj dominaciji, afektivna empatija

The effect of social and ethnical categorization of migrants on the empathetic reaction of domicile population

Research on migration represents a field of great practical importance given the increase in global trends of population movement. The need for such studies particularly exists in Serbia, which has been exposed to intensive migration influences only in the past decade. The aim of this research is to examine the factors that influence the empathic reaction of the native Serbian population towards migrants. A model was used that assumes relevant factors in the sociological characteristics of migrants (their ethnic distance from the native population and socioeconomic status), psychological characteristics of the native population (individual level of empathy and inclination toward social dominance), as well as the influence of context (whether attitudes towards migrants vary depending on the difficulty of their situation). In other words, scores of empathic reactions towards migrants were recorded in situations when something negative or positive happened to them, as well as overall empathic reactions, and the variation in scores was observed in relation to the group of migrants or individual differences among participants. An analysis of variance $F(3, 225) = 2.75, p = .044$ indicated that there are differences between the four groups of migrants (refugees from Eastern Europe, economic migrants from Eastern Europe, refugees from the Middle East, and economic migrants from the Middle East), and the Bonferroni test indicated that there is a significant difference between refugees from the Middle East as the group that evokes the least empathy and refugees from Eastern Europe who evoke the most empathy. There were no significant differences among economic migrants $t(227) = .961, p = .338$ regardless of origin, which can be interpreted as a finding that higher social and economic status reduces empathy towards a closely related group of migrants (from Eastern Europe), while increasing it towards ethnically distant groups (from the Middle East). Another interesting finding shown by the analysis of variance is that differences in empathic reaction primarily exist when something positive happens to migrants $F(3, 225) = 3.46, p = .017$, while there are no differences when something negative happens to them $F(3, 225) = 1.60, p = .192$, or when they are discriminated against. It is possible that the assessment of ethnic proximity or economic power



becomes particularly relevant for attitudes towards migrants when they receive resources that belong to the native population and are seen as competitors. Supporting this assumption is the significance of perceiving migrants as cooperative ($\beta = .426, p < .000$), which proved to be the best predictor in the regression analysis that predicted total scores ($R^2 = .30, F(3, 225) = 31.80, p < .000$). Individual differences were also informative when it comes to predicting empathic reaction, such as Inclination toward social dominance ($\beta = -.21, p < .000$) and Affective empathy ($\beta = .11, p < .025$).

Keywords: ethnicity of migrants, refugees, economic migrants, orientation towards social dominance, affective empathy



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Politicized vs. benevolent motivations of refugee helpers in Hungary in the context of the war in Ukraine

Solidarity among people is the bedrock of human existence, as it represents a universal social norm that guides everyday behaviour through deeply entrenched biological motivations and cultural values. However, solidarity is often only expressed toward ingroup members as people have a limited capacity to empathize with others. Therefore, unlike ingroup solidarity, intergroup solidarity is conditional. In this study, we examined the connection between the motivations of helpers and the conditions of helping in the first months of the refugee crisis following the war in Ukraine using a preregistered online survey in Hungary ($N = 2261$). Our main research question was whether helpers in the refugee crisis in Hungary can be distinguished based on their politicized (i.e., choosing to help to express a political stance against Russia's aggression) and benevolent motivations (choosing to help for esteem-enhancement), and whether this distinction is connected to defining the conditions of helping. Using latent profile analysis, we identified three classes of helpers based on differences in politicized motivations and esteem-enhancement, and identified differences between the most and least politicized groups. We found that helpers with more politicized motivational profiles found less importance in stereotypicality of the refugee (i.e., refugees should be hapless, grateful and culturally similar) for helping, whereas helpers with benevolent profiles found somewhat more importance in refugee stereotypicality. Our research highlights an important risk in maintaining support for refugees as many refugees do not or will not fit the stereotypical expectations of host populations.

Keywords: solidarity, refugees, Ukraine



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Do similar refugee experiences play a role in pro-refugee attitudes and behaviour? Findings from Croatia, Serbia, and Bosnia and Herzegovina

Serbia, Croatia, and Bosnia and Herzegovina have become a provisional or permanent home for more than a million and a half refugees in the past eight years. Although, in most cases, refugees did not stay in these countries longer than few months, governments and people from all three countries had to take measures to help them, at least temporary, integrate into local communities. Often, media overemphasized tensions between natives and refugees, and studies show that attitudes toward the refugees were predominantly negative. With this study, we wanted to see how similar refugee experiences from the recent past relate to positive attitudes and behaviours towards refugees in all three countries.

Convenient samples consisted of 1060 Serbs from Serbia (N = 372, 35.1%), Croats from Croatia (N = 297, 28%), and Serbs (N = 207) and Bosniaks (N = 184) from BiH (36.9%), aged 18 to 72 (M = 29.5 years), of which 62,8 % female.

We measured Regional exclusive (REVC) and inclusive (RIVC) victim consciousness and Event-specific inclusive victim consciousness (ESVC) as independent variables, while Support for pro-refugee policies and Personal involvement in helping the refugees were dependent variables. Preliminary results show that there are significant differences in all four measured variables. Bosnian Serbs show the least support for pro-refugee policies ($F(3, 1056) = 2,82; p < .05$), while both groups of Serbs had lower personal involvement in helping the refugees than the Croats and Bosniaks ($F(3, 1056) = 6,59; p < .001$). However, the levels of personal involvement were low in all four groups, highest being in Bosniaks (M = 2,82 out of 7).

We conducted four mediation analyses with the two measures of regional victim consciousness as independent variables, event-specific inclusive victim consciousness as a mediator and support for pro-refugee policies and personal involvement in helping the refugees as dependent variables in all four groups (Croats from Croatia, Serbs from Serbia, Bosnian Serbs and Bosniaks).

The results show that in all four samples, when RIVC is concerned, support for pro-refugee policies is partially mediated by ESVC, indicating that both variables are



significant for supporting pro-refugee policies. ESVC fully mediates the link between RIVC and personal involvement in helping in Croatian and Bosniaks samples and partially in both Serb samples. Finally, the link between REVC and both pro-refugees variables is fully mediated by ESVC in all four samples, with just one exception (Serbs from Serbia; here, ESVC only partially mediates the connection between REVC and personal involvement in helping). The results indicate that ESVC is an important psychological mechanism for understanding the relationship between victim consciousness and positive attitudes towards refugees.

Keywords: Regional exclusive victim consciousness, Support for pro-refugee policies , refugees, migrants



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The challenges of the integration of refugee children in Croatia from their perspective

As part of the IRCiS project, which focuses on the school integration of refugees, a longitudinal qualitative study was conducted with refugee children enrolled in elementary school. The goal was to examine the challenges refugee children face in the integration process, their needs, and their perspective on what made the integration process easier for them.

The research was conducted on two occasions. In the first wave at the beginning of 2020, 15 interviews were conducted with refugee children (7 girls and 8 boys) who at that time attended elementary school (age 7-15; from 6 different elementary schools in Zagreb). The children were mostly from Arabic-speaking cultures (Syria, Iraq, Iran, Palestine, Egypt) and had been in Croatia at least one year at the time and were granted international protection. The interviews were conducted in Croatian with the help of a translator. We asked them to recall the difficulties they had when they first came to Croatia, communication with children and teachers at school, socializing with domiciled peers and their suggestions to make it easier for future refugees to come to a new environment. After 2 years, we repeated the interviews with 9 of the refugee children who still attended elementary school, but without the help of a translator. We asked children about perceived changes in communication and relationships with peers. We were also interested in what helped them in the process of integration and learning the



language, and what their suggestions were to facilitate the integration of future refugees.

The interviews were transcribed and coded, and a thematic analysis was carried out. Based on the interviews, it turned out that the key challenge in the integration process is the language barrier. Insufficient knowledge of the language made it difficult for them not only to master the school material but also to socialize with their peers. The children state that in the beginning, due to lack of knowledge of the language, there were frequent misunderstandings, which resulted in unpleasant emotions and avoidance of communication. After two years, children are much better integrated and connected with their peers, they feel more comfortable in a new environment. They consider mastering the Croatian language to be the key mechanism of change, which eliminated shame and made socializing with peers easier. Therefore, their suggestions for facilitating the integration process are predominantly aimed at more effective language acquisition. In order to learn the language more easily and quickly, children emphasize that it is necessary that teachers encourage them, notice and praise their progress in order to reduce shame and to motivate them to learn. They also point out that it is necessary to further encourage socializing between refugee children and their Croatian peers and provide additional help in learning.

Keywords: integration of refugees, school integration, qualitative data, interviews with refugees, language barrier

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MENTALNO ZDRAVLJE I COVID-19: NEKAD I SAD MENTAL HEALTH AND COVID-19: BEFORE AND TODAY

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Psihološka nefleksibilnost i kiberhondrija kao čimbenici rizika za mentalno zdravlje tijekom pandemije – longitudinalna studija

Cilj istraživanja bio je testirati pretpostavljeni model medijacije s dva prediktora (otpornost i psihološka nefleksibilnost), dva kriterija (strah povezan s COVID-19, opća psihološka uznemirenost) i jednom medijatorskom varijablom (kiberhondrija - pretjerano pretraživanje informacija o simptomima na internetu uz povećanu anksioznost). Pretpostavlja se da ranjiviji pojedinci (oni koji imaju nisku otpornost i nisku psihološku fleksibilnost) pokazuju višu razinu kiberhondrije na početku pandemije, što posljedično uzrokuje višu razinu psihološkog stresa i izraženiji strah povezan s COVID-19 godinu dana kasnije i tri godine kasnije. Istraživanje je provedeno u tri vala – prvi val bio je na početku karantene u Hrvatskoj (ožujak 2020., N = 1023, od kojih je N = 352 pristalo na praćenje), a drugi val godinu dana kasnije (ožujak 2021., N = 184), a treći val na kraju pandemije 2023 godine (N = 150). Koristili smo The Short Cyberchondria Scale (SCS, Jokić-Begić i sur., 2019), Acceptance and Action Questionnaire (AAQ-II, Bond i sur., 2011) i The Brief resilience Scale (BRS, Smith i sur., 2008) u prvom valu, a DASS-21 (Lovibond & Lovibond, 1995.) i MAC-RF (Schimmenti et al., 2020.) izmjereni su u drugom valu i trećem valu. Naši rezultati djelomično potvrđuju predloženi model s kiberhondrijom i psihološkom nefleksibilnošću kao čimbenicima koji pridonose dugotrajnoj uznemirenosti. Psihološka nefleksibilnost ima direktan efekt na psihološku uznemirenost, ali ne i na strah povezan s COVID-19, dok otpornost, preko kiberhondrije ima indirektan efekt samo na strah povezan s COVID-19. Rezultati ovog istraživanja, iako na malom uzorku, govore u prilog poticanju psihološke fleksibilnosti i psihološke otpornosti u općoj populaciji kako bi se negativni učinci koje pandemija ima na mentalno zdravlje sveli na najmanju moguću mjeru, potvrđujući istovremeno dekrementalni učinak infodemije na mentalno zdravlje tijekom pandemije.

Ključne reči: mentalno zdravlje, strah od COVID-19, psihološka fleksibilnost, otpornost



Psychological inflexibility and cyberchondria as risk factors for mental health during the pandemic - a longitudinal study

The aim of this study was to test the hypothesized mediation model with two predictors (resilience and psychological inflexibility), two criteria (fear related to COVID-19, general psychological distress), and one mediator variable (cyberchondria - excessive searching for information about symptoms on the Internet followed by increased anxiety). It is hypothesized that more vulnerable individuals (those with low resilience and low psychological flexibility) exhibit higher levels of cyberchondria at the onset of the pandemic, which consequently causes higher levels of psychological stress and more pronounced fear associated with COVID-19 one year later and three years later. The research was conducted in three waves - the first wave was at the beginning of the quarantine in Croatia (March 2020, N = 1023, of which N = 352 agreed to follow up), the second wave a year later (March 2021, N = 184), and the third wave was at the end of the pandemic in 2023 (N = 150). We used The Short Cyberchondria Scale (SCS, Jokic-Begic et al., 2019), the Acceptance and Action Questionnaire (AAQ-II, Bond et al., 2011), and The Brief Resilience Scale (BRS, Smith et al., 2008) in the first wave, and the DASS-21 (Lovibond & Lovibond, 1995) and MAC-RF (Schimmenti et al., 2020) were measured in the second and third wave. Our results partially confirm proposed model with both cyberchondria, and psychological inflexibility as contributing factors to long-term distress. Psychological inflexibility has a direct effect on psychological distress, but not on fear related to COVID-19, while resilience, through cyberchondria, has an indirect effect only on fear related to COVID-19. The results of this research, although on a small sample, speak in favor of encouraging psychological flexibility and psychological resilience in the general population in order to minimize the negative effects that the pandemic has on mental health, confirming at the same time the decremental effect of the infodemic on mental health during the pandemic.

Keywords: mental health, fear of COVID-19, psychological flexibility, resilience



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A Citizen Science Approach to Daily Monitoring of Emotional Responses to the first wave of Coronavirus Pandemic in Serbia

This research was conducted to further our understanding of emotional reactions to the COVID-19 pandemic. Changes in emotional reactions during the pandemic and relations



with specific pandemic-related behaviors and personality traits from the revised Reinforcement sensitivity theory were explored. The research was conducted in Serbia for 35 days while the country was in a state of emergency, as a citizen science project. Out of the 1526 participants that joined the study, 444 (67% female) had measures for all five weeks. Longitudinal changes in four emotional states during the pandemic were examined: worry, fear, boredom, and anger/annoyance. Results indicate a decrease in all four emotional states over time. The biggest decrease was present in the case of worry, followed by fear and boredom. Regression analysis showed that personality dimensions, as well as behavioral responses significantly predicted emotional reactions. Findings revealed that BAS was significantly related to worry, fear, and boredom, Fight with boredom and anger, and BIS with anger. Adherence to protection measures and increased exposure to the media had significant positive relations with worry and fear. These results indicate that both stable characteristics and specific pandemic-related behaviors are significantly related to emotional response during the pandemic.

Keywords: COVID-19, emotional reactions, revised Reinforcement sensitivity theory, the state of emergency, citizen science



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Neko ružno sanja, nekom su košmari svitanja: uloga kvalitete spavanja u očuvanju mentalnog zdravlja

Pandemija COVID-a-19 je imala značajan negativni utjecaj na obrasce i kvalitetu spavanja. Mehanizmi u podlozi ovog fenomena su brojni, od promjena u dnevnoj rutini, izloženosti prirodnom svjetlu i produženog vremena pred ekranima, do prekida društvenih i tjelesnih aktivnosti te povećanog stresa i tjeskobe. Ovo potonje - mentalno zdravlje i njegova povezanost s kvalitetom spavanja - je ujedno i cilj ovog istraživanja, provedenog u sklopu projekta „Kako smo? Život u Hrvatskoj za vrijeme korone“. Utjecaj mentalnog zdravlja na kvalitetu spavanja je od ranije poznat u literaturi. Međutim, istraživanja u području psihofiziologije spavanja upućuju i na značajan dvosmjerni utjecaj: narušena arhitektura spavanja također doprinosi povišenim razinama anksioznosti i, posljedično, depresivnosti. Stoga smo u ovom radu ispitali koliki je doprinos kvalitete spavanja (mjereno PSQI upitnikom) mjerama mentalnog zdravlja (DASS-21), povrh demografskih varijabli te onih koje mjere brige specifično vezane uz pandemiju (čestice formirane za potrebe ovog istraživanja), poput zdravstvenih, obrazovnih i ekonomskih briga. Podaci su prikupljeni online upitnikom krajem 2020. godine. Analize su provedene na odgovorima 513 sudionika koji su odgovorili na dio upitnika posvećen kvaliteti spavanja,



a rezultati pokazuju da za sve tri mjere mentalnog zdravlja (depresivnost, anksioznost, stres), kvaliteta spavanja objašnjava značajan i nezavisni dio varijance, povrh varijance objašnjene brigama vezanim uz pandemiju. S obzirom na činjenicu da je oko polovice (49.2%) sudionika na PSQI upitniku postiglo rezultat veći od 5, što se smatra klinički indikativnim za narušenu kvalitetu spavanja, ovi nalazi upućuju na nužnost skrbi i o kvaliteti spavanja, kao važnom elementu u pokušajima oporavka mentalnog zdravlja u poslijepandemijskom razdoblju.

Ključne reči: COVID-19, spavanje, mentalno zdravlje

Some have bad dreams, some have nightmares when they wake up: the role of sleep quality in maintaining mental health

The COVID-19 pandemic has had a significant negative impact on sleep patterns and quality. The mechanisms underlying this phenomenon are numerous, from changes in the daily routine, exposure to natural light and extended time in front of screens, to the interruption of social and physical activities and increased stress and anxiety. The latter - mental health and its connection with sleep quality - is also the goal of this research, conducted as part of the project "How are we?" Life in Croatia during corona". The influence of mental health on sleep quality has long been known in the literature. However, research in the field of sleep psychophysiology also points to a significant two-way impact: disrupted sleep architecture also contributes to elevated levels of anxiety and, consequently, depression. Therefore, in this paper, we examined the contribution of sleep quality (measured by the PSQI questionnaire) to measures of mental health (DASS-21), in addition to demographic variables and those that measure concerns specifically related to the pandemic (particles formed for the purposes of this research), such as health, education and economic concerns. The data was collected through an online questionnaire at the end of 2020. Analyzes were conducted on the answers of 513 participants who answered the part of the questionnaire dedicated to sleep quality, and the results show that for all three measures of mental health (depression, anxiety, stress), sleep quality explains a significant and independent part of the variance, on top of the variance explained by concerns related to pandemic. Considering the fact that about half (49.2%) of the participants on the PSQI questionnaire achieved a result greater than 5, which is considered clinically indicative of disturbed sleep quality, these findings point to the necessity of caring for sleep quality as an important element in attempts to recover mental health. in the post-pandemic period.

Keywords: COVID-19, sleep, mental health



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Putanje subjektivnog blagostanja tokom pandemije COVID-19: prediktori uspešne adaptacije

Sam početak pandemije koronavirusa obeležio je širok spektar različitih promena u svakodnevnom funkcionisanju, učestala zabrinutost za svoje i zdravlje bližnjih, ali i nadolazeća neizvesnost usled ekonomskih posledica pandemije. Brojne studije su stoga bile posvećene istraživanju negativnih psiholoških konsekvenci takvih promenjenih uslova života. Međutim, većina istraživanja koja su se bavila ovom temom su bila kros-sekciona i pristupila su ovoj temi iz perspektive pristupa usmerenog na varijable, čime je onemogućeno istraživanje procesa adaptacije. U skladu sa tim, vrlo malo znamo o putanjama adaptacije na promene izazvane pandemijom koronavirusa, budući da to uključuje primenu pristupa usmerenog na osobu na longitudinalnim podacima. Glavni ciljevi ove studije su: 1) ispitavanje putanja emocionalnog distresa tokom pandemije COVID-19, i 2) istraživanje prediktora različitih putanja promene emocionalnog distresa tokom pandemije. Uzorak se sastojao od 1387 osoba, starosti između 18 i 85 godina ($M = 37,41$, $SD = 12,32$; 82,6% žena), koji su popunili upitnik emocionalnog distresa (DASS-21) četiri puta, jednom nedeljno tokom aprila 2020. godine. Osim toga, ispitanici su pri prvom merenju popunjavali i : 1) Upitnik kognitivne regulacije emocija; 2) mere institucionalnog i interpersonalnog poverenja (poverenje u državu, u zdravstveni sistem, u bliske osobe i u ljude generalno), 3) mere koje se odnose na sam koronavirus (strah od infekcije, verovatnoća oboljevanja i procena kraja pandemija). Primenom analize latentnih profila registrovane su četiri putanje emocionalnog distresa: 1) stabilno nizak emocionalni distres (82%), 2) stabilno visok emocionalni distres (3,3%), 3) rastući emocionalni distres (7,2%), 4) opadajući emocionalni distres (7,5%). Putanje se nisu razlikovale u zavisnosti od izraženosti mera koje su se odnosile na sam virus, poput straha od infekcije i procene verovatnoće oboljevanja. Putanju rastućeg emocionalnog distresa karakterisalo je najniže institucionalno poverenje. S druge strane, putanju opadajućeg emocionalnog distresa karakterisalo je učestalije korišćenje adaptivnih strategija emocionalne regulacije. Iako se putanje stabilno niskog i opadajućeg emocionalnog distresa nisu razlikovale po učestalosti korišćenja adaptivnih strategija emocionalne regulacije, putanju opadajućeg emocionalnog distresa je karakterisalo nešto učestalije korišćenje pojedinih maladaptivnih strategija emocionalne regulacije. Biće diskutovane praktične i teorijske implikacije ovog istraživanja.

Ključne reči: emocionalni distres, pristup usmeren na osobe, putanje adaptacije, COVID-19



The trajectory of subjective well-being during the COVID -19 pandemic: Predictors of successful adaptation

The coronavirus pandemic was characterized by a wide variety of diverse changes in daily functioning, continuous worry for one's own health and those of loved ones, as well as impending uncertainty owing to the epidemic's economic effects. Many studies have consequently been devoted to examining the negative psychological effects of such altered living circumstances. However, most of the study on this topic was cross-sectional and took a variable-oriented approach, which made it impossible to investigate the adaptation process. Relatively little is known about the trajectories of adaptation to changes during the coronavirus pandemic, as this involves applying a person-centered approach to longitudinal data. The primary aims of this study are to: 1) investigate the trajectories of change in emotional distress during the pandemic, and 2) examine determinants of different trajectories of adaptation. The sample included 1387 participants aged 18 to 85 years old ($M = 37.41$, $SD = 12.32$; 82.6% female) who completed the emotional distress questionnaire (DASS-21) four times, once a week, from April 2020. In addition, the participants completed the following questionnaires during the first measurement: 1) a questionnaire on cognitive regulation of emotions; 2) measures of institutional and interpersonal trust (trust in the government, trust in the health-care system, trust in close people and in people in general); and 3) measures related to the coronavirus itself (fear of infection, probability of getting sick, and assessment of the pandemic's end). Four emotional distress pathways were identified using latent profile analysis: 1) stable low emotional distress (82%), 2) stable high emotional distress (3.3%), 3) growing emotional distress (7.2%), and 4) decreasing emotional distress (7.5%). The trajectories did not differ depending on the severity of virus-related measures, such as fear of infection and assessment of the probability of getting sick. The lowest institutional trust defined the trend of growing emotional distress. On the other side, the trajectory of decreasing emotional distress was characterized by more frequent use of adaptive cognitive emotion regulation strategies. Although the frequency of using adaptive cognitive emotion regulation strategies did not differ between the trajectories of stable low and decreasing emotional distress, the decreasing emotional distress trajectory was characterized by slightly more frequent use of certain maladaptive cognitive emotion regulation strategies. We will discuss the practical and theoretical implications of this research.

Keywords: emotional distress, person-centered approach, adaptation trajectories, COVID-19 pandemic



HEURISTIČKI PROCESI KAO
POTROŠAČI KOGNITIVNIH RESURSA
HEURISTIC PROCESSES AS
CONSUMERS OF COGNITIVE RESOURCES

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Impact of cognitive load of two types of processing on RT in lexical decision task

Within the dual process framework, decades of investigating two distinct types of human reasoning revealed that only the difference in cognitive load stands as a defining feature: Type 1 processes have low cognitive resource requirements and Type 2 are cognitively costly. The present study aimed to examine the impact of 2 types of processing on subsequent simpler cognitive tasks. We aimed to test if the heuristic reasoning is indeed always a shallow one, meaning that the content retrieval and priming effects would be weaker after the heuristic reasoning. We combined reasoning tasks with a lexical access paradigm forming a sequence of reasoning and simpler cognitive processing. In each sequence, the first task was the task from CRT (8 pairs of conflict and non-conflict counterparts of the very same content), which cues three types of answers: correct, heuristic, and atypical incorrect answers, indicating the types of reasoning used during solving the tasks. The second task in the sequence, administered immediately after the CR task, was the lexical decision task (LDT). In LDTs participants are presented with letter strings and instructed to indicate whether the string is a word or not. LD task consisted of 24 medium frequency range nouns that were (1) identical to the words in CRT, (2) semantically related to them, (3) semantically unrelated, and (4) pseudo-words (12). The CR task + LDT sequence was repeated 16 times per participant (N = 82). To test whether the type of processing on CR tasks influenced reaction times in LTD after solving different types of CR tasks, we employed factorial design with the repeated factors: CR task type (2: conflict, non-conflict), type of answer (2: analytical (correct), heuristic (typical incorrect)), and word category (3: core, related, unrelated).



The dependent variable was reaction time in lexical decision tasks. Three-way ANOVA revealed the main effect of the word category ($F(2, 81) = 4.247, p = .016, \eta^2 = .06$). None of the interaction (three- and two-way) effects were registered. Reaction time for lexical decision was the fastest for the same, and the slowest for semantically related words. As for the type of answers, two-way ANOVA revealed the main effects of both the word category ($F(2, 81) = 5.589, p = .005, \eta^2 = .067$) and the type of answers ($F(1, 81) = 4.756, p = .032, \eta^2 = .057$). RT for the same words was the shortest, followed by related and unrelated, presumably due to the priming effects. Preceded by the correct answers, the same and the related words, but not the unrelated ones, were recognized faster than after the heuristic answers. These results suggest that the two types of reasoning differently affect the subsequent lexical access. The content about which participants deliberated was actively processed, which enabled easier lexical access to that content. The resourceful processing of the content boosts the content retrieval in another processing, while the low-load processing doesn't pay off.

Keywords: dual-processes, heuristic processing, analytical processing, cognitive load, syllogistic reasoning, lexical decision task

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Conflicting intuitions in a hybrid dual-process model of cognition

Hybrid models of dual processes assume that multiple intuitions are activated during the initial stages of reasoning before engaging in deliberative processing – heuristic intuitions that yield systematically incorrect responses and logical intuitions that yield correct ones in line with normative, logical and probabilistic principles. The latest hybrid model (De Neys, 2022) states that the intuition with greater strength ie. the one that is more automated will elicit the response. The model also states that the activation of intuitions is monitored by an uncertainty parameter that can be operationalized through the feeling of rightness in the initial response – the more equal the two intuitions are in their strength, the lower the feeling of rightness should be. The aim of this research was to test the predictions of the model and examine the relationship between intuitive processing and cognitive measures that have been previously linked to found deliberative reasoning. In the first study, we have manipulated the strength of logical intuitions by varying the extremity of rates in the base-rate neglect tasks. The results



show that correct responses i.e. the strength of logical intuitions decrease with the extremity of rates. In Study 2, we have presented the tasks within a two-response paradigm – once under a time limit and a concurrent cognitive task, thereby imposing the intuitive processing, and once with no restrictions, enabling deliberative processing. After responding, participants ranked their confidence in the response. We have also collected measures of cognitive ability (fluid intelligence, working memory, cognitive reflection) and thinking styles (actively-open minded, rational and intuitive thinking styles) that have shown to be robust predictors of found deliberative reasoning. Three-Way repeated ANOVA was conducted on response accuracy. Tasks with conflict ($F(1,89) = 755.30, p < .001, \eta^2 = .90$), cognitive load ($F(1,89) = 14.33, p < .001, \eta^2 = .14$) and moderate base rates ($F(1,89) = 14.33, p < .001, \eta^2 = .14$) proved to be more difficult. Most importantly, rate extremity significantly interacted only with conflict ($F(2,178) = 15.33, p < .001, \eta^2 = .15$). The results imply that extreme rates facilitate accurate reasoning in conflict tasks in both intuitive and deliberative reasoning. As for the feeling of rightness, inferential statistical analyses could not be conducted, because of small sample groups. Descriptive statistics do indicate that the feeling of rightness decreases with the relative strength in conflicting intuitions. At last, working memory capacity significantly correlated with intuitive reasoning ($r = .248, p < .05$), which calls into question the traditional assumption that intuitive processing is completely independent of working memory. Results indicate that the model posits a fairly plausible theoretical framework of dual processing, yet call for further investigation of individual differences in intuitive reasoning.

Keywords: dual processes, hybrid model, logical intuitions, uncertainty, working memory

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Temporal localization of logical intuitions

According to Dual Process theories (DPT), reasoning rests on two types of processes – the Type 1 i.e. intuitions, and the Type 2 i.e., deliberation. Hybrid models of dual processes propose that intuitions exist in at least two forms – heuristic and logical which are based on highly automated mindware i.e., knowledge about mathematical, logical and probabilistic principles. These multiple intuitions activate very early in reasoning and are registered using common reasoning tasks given to participants twice – once with



working memory load in order to facilitate intuitive response, and then without such load to facilitate deliberative answer. Research employing the two-response paradigm showed that a great percentage of participants gives correct answer in conditions of decapacitated working memory i.e., intuitively and that individual differences in that domain can be explained by differences in cognitive abilities. The aim of this reserach was to localize the timeframe when logical intuitions activate by their known correlates. Participants (N = 179) were presented with the cognitive reflection test (CRT) in a multiple choice form, first with a strict time limit for solving, and then without a time limit. Also, they solved 21 mathematical tasks used as a mindware test, executive functioning tasks and a short form of Raven's progressive matrices. The time limit for CRT was based on individual participants' reading speed – each CRT task was, depending on the participant's group, shown for 250 to 1500 ms plus mean reading time of five sentences corresponding to that particular CRT task. ANOVA revealed significant effect of the time limit (2: with, without; $F(1, 359) = 286.283, p < .001$) and an insignificant effect of the group (6: 250 – 1500 ms; $F(5, 367) = 1.640, p = .149$) on accuracy in solving CRT. Linear regression showed that the only significant predictor of CRT accuracy in deliberative (no limit) condition was the accuracy on mindware test ($\beta = .557, p < .001$), although the whole model, that included cognitive abilities, was significant ($R^2 = .358, p < .001$). The model for intuitive responding (time limit) was also significant ($R^2 = .088, p = .014$), but the only significant predictor of CRT accuracy was mindware automatization i.e., mean speed of solving the mindware test ($\beta = -.239, p = .002$). When split into groups, the only significant regression models were observed in 500ms ($R^2 = .435, p = .042$) i 1000ms ($R^2 = .456, p = .010$) time limits. However, in the 500ms group, no construct emerged as a significant predictor, while in the 1000ms group we registered only one – mindware automatization ($\beta = -.588, p = .001$). The data points to a conclusion that logical intuitions, presumed to be based on highly automated mindware, activate between 750 and 1000 ms after participant has finished reading the task.

Keywords: Logical intuitions, Dual Process theories, mindware, Type 1 processes, reasoning

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Investigating fake-news and conspiracy claims using a two-response paradigm

In this study, we set out to investigate the ways people respond to fake-news headlines and conspiracy claims using a two-response paradigm. In the two-response paradigm, respondents were presented with series of fake-news headlines (four items from the Misinformation susceptibility test; MIST) or conspiracy claims (one item from the Single item conspiracy belief scale (SICB) and six items from the Generic conspiracist belief scale; GCB) and asked to evaluate each claim two times. First time, in the fast-responding condition, they provided their rapid, intuitive responses assessing the believability of news-headlines and the level of agreement with the conspiracy claims. Immediately after, in the slow-responding condition, they provided their second response, this time without a time limit. The main goal of the study was to investigate the individual differences behind the ways people evaluate these claims. Specifically, we wanted to see how people that change their mind through deliberation vs. those that do not differ in cognitive abilities (assessed with Cognitive reflection test (CRT)) and thinking dispositions (Actively open-minded thinking (AOT), Need for cognition (NFC) and Faith in intuition (FI)).

131 participants participated in our study (69% females), 116 after excluding those with more than 60% missing values in the fast-responding condition. The results indicated that although the modal outcome for each specific item was that the ratings were same in both conditions, majority of participants (69% for MIST and 61% for GCB) nevertheless changed their responses on at least half of the items in the scale. Mean confidence in the first response and mean response time on the second response predicted the probability of changing response for each of the three outcomes, such that higher confidence and lower response time were associated with lower number of responses on which participants changed their minds.

To investigate the role of individual differences in mind changing, we calculated the differences between the mean responses in slow condition and mean responses in fast condition for our three outcome variables. A higher score here always implies changing the mind for the better (i.e. lower fake-news and conspiracy susceptibility in the slow responding condition). Regarding the differences in responding to fake-news headlines, only propensity for AOT was positively correlated with the difference score ($r = .21$). Regarding the conspiracy claims, the SICB difference score was positively correlated with CRT ($r = .23$), AOT ($r = .32$) and NFC ($r = .38$), while the GCB difference score failed to correlate with every individual-difference variable we measured.



In conclusion, although the results are mixed, there are meaningful individual differences in the ways people assess the veracity of news headlines and conspiracy claims, and these differences are, at least sometimes, related to the cognitive abilities and thinking dispositions.

Keywords: fake news, two-response paradigm, deliberation, cognitive abilities, thinking dispositions



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Generalizability of the source reliability effect

Pseudo-profound bullshit (PPB) in research represent syntactically and grammatically correct statements which is why they appear as carrying some information. However, as PPB are made by randomly selecting buzzwords from an existing database and then inserting them into predefined sentence structures, they are by design made without regard for meaning and veracity. Their third, theoretical, characteristic is that they are made with the intention to impress an audience. Research shows that PPB are evaluated as profound, and individual differences in that propensity are explained, inter alia, by differences in propensity to engage in deliberate reflection over a stimulus and reach the conclusion that it is actually meaningless. In line with this are the findings that context influences PPB profundity judgements. When PPB is attributed to an incredible source, evaluations decrease, implying that information about a source cues revision of the judgement. The aim of this research was to test whether the characteristics of bullshit – meaninglessness and intention to impress, influence the effect of source reliability, or source drives profundity judgements automatically and generally. Participants (N = 98) were presented with 48 statements: 12 PPB (meaningless, with intention), and 36 statements that systematically differed – 12 meaningful with intention, 12 meaningful without intention, 12 meaningless without intention. All statements were presented without, and then with sources of different reliability (3: reliable, unreliable, fictional). We registered significant effect of interaction of attribution status (2: without, with source) and source reliability ($F(2, 194) = 78.482, p < .001, \eta^2 = 0.447$) on mean evaluations of profoundness of all statements taken together – reliable sources led to an increase, and unreliable to a decrease in evaluations. The effect of statement meaningfulness on the size of evaluation change due to reliable source was significant ($F(1,97) = 4.614, p = .034, \eta^2 = .045$) – larger change was observed with meaningless content. The effects of intention to impress ($p = .077$) and interaction of these factors ($p = .078$) weren't. The intention to impress had a significant effect on the size of change due to unreliable authorship ($F(1, 97) = 21.918,$



$p < .001$, $\eta^2 = .0.184$) - greater change was observed with statements made with such intention. The effects of meaningfulness ($p = .097$) and interaction of the two factors ($p = .137$) weren't significant. So, although the information about an unreliable source has a normatively desirable effect on profundity judgements of meaningless content, we also registered significant effects of reliable authorship, and not only with meaningless content where a source could serve as a useful cue, but also with unambiguous content. Source information doesn't serve as a cue to subject content to further consideration before reaching a profundity judgement, but drives evaluations automatically and in general.

Keywords: Pseudo-profound bullshit, source reliability, judgement, intention to impress, meaningfulness

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ADVANCES IN LGBTIQ+ RESEARCH FROM BATTLING PREJUDICE TO STARTING FAMILIES

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A cross-cultural study on modern heterosexism: Country comparisons and predictors

The conception of modern prejudice into the realm of heterosexism (HS) offers better insight into the subtle and nuanced forms of prejudice that continue to maintain stratification based on sexual orientation, while appearing to be less offensive and derogatory. A new measure of modern heterosexist beliefs – the Multidimensional Heterosexism Inventory (MHI), captures the four subdomains: paternalistic, aversive, amnestic, and positive stereotypic HS. So far, MHI was used only in the USA. In this study, we aimed to explore modern HS in different social and cultural contexts. The aim of the study was to examine the level of HS in six countries (USA, Italy, Spain, Malta, Serbia, and Lithuania) and its predictors from the domains of socio-demographic variables (abbr. SDV), ideology/values (abbr. IV), and contact with LGBT+ individuals. The sample included 1608 participants ($n_{USA} = 320$, $n_{It} = 201$, $n_{Sp} = 276$, $n_{Ma} = 284$, $n_{Ser} = 301$, $n_{Lit} = 226$), 33% of which were male. Aside from MHI, we gathered data on participants' gender, age, education, political orientation, religiosity, quality and quantity of contact with LGBT individuals.



Results indicated that the lowest levels of all four dimensions of HS were present in Spain and Italy, followed by USA, Serbia and Lithuania, with Maltese participants scoring the highest on all four dimensions ($F_5(5,1602) = [43.07-67.55]$, $ps < .001$). To predict the four dimensions of HS, hierarchical regression analyses were used, with predictors being added in three steps: SDV (gender, age, education), IV (political orientation, religiosity), and contact with LGBT individuals (quality and quantity). SDV gave a statistically significant contribution to the explanation of paternalistic HS in Serbia, Spain, Malta and the USA ($R_2 = [3.3\%-21\%]$; $ps < .05$). IV explained from 3% (in Malta) to 18.8% of variance (in Spain; all $ps < .05$). Contact did not explain Paternalistic HS in Spain, but it explained between 2% (in Malta) to 4.2% (in Italy). In all countries, SDV ($R_2 = [5.8\%-48\%]$; $ps < .05$) and IV ($R_2 = [8.6\%-22.9\%]$; $ps < .05$) gave a significant contribution to the explanation of Aversive HS and contact predicted it in all countries except Lithuania and Spain ($R_2 = [2.2\%-5.9\%]$; $ps < .05$). Amnestic HS was significantly predicted by SDV ($R_2 = [5.1\%-40.3\%]$; $ps < .05$) and IV ($R_2 = [4.6\%-19.9\%]$; $ps < .05$) in all countries, while contact gave significant contribution only in Lithuania ($R_2 = 2.7\%$, $p = .011$) and the USA ($R_2 = 4.9\%$, $p < .001$). Finally, positive stereotypic HS was predicted by SDV in Italy, Lithuania, USA, and Malta ($R_2 = [4.8\%-21.3\%]$; $ps < .05$), by IV in all countries ($R_2 = [2.6\%-15\%]$; $ps < .05$), while contact variables gave no predictive contribution.

Our results indicate that socio-cultural contexts largely shape the level and the determinants of HS. However, political orientation is the most consistent predictor of four dimensions of HS across all contexts, indicating the importance of political ideologies for LGBT acceptance.

Keywords: heterosexism, modern prejudice, homophobia, political orientation, contact hypothesis

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LGBTInclude: Reducing prejudice and stigma of LGBTI+ persons through social-psychological mechanisms

In early 2021 in Serbia, the discussion on the Law on same-sex unions brought up much civil unrest. Prejudice, discrimination, and stigma, present at an everyday level for LGBTI+ persons, have increased, both hindering the process of the adoption of the Law



and influencing the quality of life of LGBTI+ persons. Social distance is high towards LGBTI+ persons and their families in Serbia, and they experience high (auto)stigmatization. Homophobia is partly an effect of a lack of knowledge about the LGBTI+ population, and stereotyped/prejudiced understanding of this population. Thus, society needs to put effort into integrating LGBTI+ persons into Serbian society. The main goal of our project was to raise general awareness about the challenges the LGBTI+ population is dealing with. To achieve that goal, we created three short video interventions (VI) based on the findings of previous studies that showed that effective implicit prejudice interventions in real-world contexts use outgroup identification, exposure to counterstereotypical examples, and emotion induction (Fitzgerald et al., 2019). The VIs were created based on the scripts developed from narratives of focus group participants (8 LGBTI+ persons) and depicted counter-stereotypical everyday life situations of LGBTI+ persons. By providing insights into the lives of LGBTI+ persons, we aimed to achieve recategorization, thus supporting the wider population to identify with the outgroup, develop empathy, and consider the shared identities instead of conflicting ones (e.g., people having the same everyday routine of getting ready for work). To test the effects of VI, we conducted a study with 310 participants (55.5% female). Participants were randomly assigned to a control group (CG; $n = 103$) and three experimental groups (EG1, EG2, and EG3). The EG1 ($n = 78$) watched the VI depicting a gay couple, those from the EG2 ($n = 58$) watched the VI depicting a lesbian couple, and EG3 ($n = 71$) watched the VI about a trans woman. All participants completed the Attitudes Toward Lesbians and Gay Men Scale (homonegativity), the Negative affect subscale from SIAB-PANAS, The Multidimensional Heterosexism Inventory (aversive heterosexism, amnesic heterosexism, paternalistic heterosexism, and positive stereotypic heterosexism), and Transphobia Scale. We conducted one MANOVA to compare CG with EG1, EG2, and EG3 on the abovementioned variables. While the multivariate effect was not significant, $F(21, 861.988) = 1.39, p = .113$, there was a significant univariate effect of the condition on amnesic heterosexism, $F(3, 306) = 3.11, p = .027$. Post hoc test revealed higher amnesic heterosexism in EG3 compared to CG ($p = .048$). Potentially, participants who watched VI about a trans woman expressed these benevolent prejudices as a defense mechanism or because they have less experience with trans individuals. Methodological shortcomings, such as lack of pre-test, will further be discussed.

Keywords: LGBTI+, prejudice, prejudice reduction intervention, transphobia

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The Effect of Intergroup Contact and Support for Social Change - Experimental and Quasi-Experimental Results

Correlational evidence suggests that the effect of intergroup contact on support for social change toward greater equality is positive among members of advantaged groups but negative among members of disadvantaged groups (i.e., “irony of harmony”). Because non-correlational designs are important to understand the practical implications of the effect, but have rarely been used, we conducted a within-study comparison of the conclusions of different designs. We replicated the standard pattern using cross-sectional correlations among $n = 509$ LGBTIQ+ and $n = 421$ cis-heterosexual individuals. Using a fast friendship procedure, we varied whether these participants could then choose or were randomly assigned to interact with an ingroup member or an outgroup member. Whereas the quasi-experimental results (chosen interaction) confirmed the correlational results for cis-heterosexual individuals, they were mostly non-significant for LGBTIQ+ individuals. Finally, results of the randomized experiment did not yield evidence of short-term causal effects of intergroup contact for either group. Commonality-focused positive contact does not seem to affect support for change.

Keywords: LGBTIQ+, Contact, Social Change, Collective Action

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A Double-edged Sword: Differentiating Impacts of Community Participation among SGM Adults in 28 European Countries

Although community participation is suggested to play an ameliorative role in the mental health of sexual and gender minority (SGM) individuals, previous studies reported conflicting results, from positive to negative. Structural stigma (i.e., discriminatory laws, public policies, and societal attitudes) could explain this inconsistency since it is significantly linked to victimization and identity disclosure experiences of SGM individuals. Thus, we aimed to investigate the mediator roles of



identity disclosure and victimization and the moderator role of structural stigma in the association of community participation with depression.

We used data from the EU-LGBTI-II survey, measuring community participation, identity disclosure, victimization, and depression among sexual minority men ($n = 62,939$), women ($n = 38,976$), and gender minority adults ($n = 15,845$) in 28 European countries. Structural stigma was assessed as discriminatory legislation, policies, and societal attitudes using publicly available data.

Community participation predicted lower and higher levels of depression through identity disclosure and victimization, respectively. For sexual minorities, structural stigma moderated the indirect effect through identity disclosure, with a larger effect in higher structural stigma countries. Only for sexual minority men, the indirect effect via victimization was also moderated, with a larger effect in high-stigma countries. For gender minorities, the moderation effect was nonsignificant.

Community participation has differentiating impacts on depression through victimization and identity disclosure, and as a function of structural stigma. It can be a double-edged sword, especially for sexual minority men in high-stigma countries, who are expected to pay the price while enjoying its benefits, highlighting the targets and considerations for interventions.

Keywords: structural stigma, community participation, depression, minority stress, intersectionality, sexual and gender minorities, LGBTIQ+



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Rainbow families in Croatia: Results from a qualitative study

In Croatia, LGBTIQ+ people and their families largely lack legal and social recognition, as well as support. However, it is the duty of every society to develop policies aimed at supporting optimal psycho-social development of all children and young people, and acknowledging the experiences and needs of LGBTIQ+ parents and their children is a necessary step towards achieving these goals. Hence, the main goal of the qualitative research project "Rainbow Families in Croatia" was to gain insight into the experiences of families in which at least one parent is an LGBTIQ+ person, with a focus on gaining insights into the specificity of family structures, the quality of parenting, the psycho-social adjustment of children, as well as into the needs, availability of support, and discrimination that LGBTIQ+ parents and their children experienced.



The research included 29 families, within which 63 family members were interviewed, including 55 adults (parents, foster parents, adoptive parents, and parents' partners) and 8 children, in addition to 33 children who were indirectly included in the research through their parents' reports. Most of the participants were cis women (35, 65%), followed by cis men (11, 20%). The other participants were persons of female gender and non-binary gender identity (5.9%), one transgender person of male gender and one person who does not identify with gender or gender. Most of the participants described their sexual orientation as homosexual (27, 50%) and bisexual (15, 28%), while a smaller number of participants stated that they did not identify with their sexual orientation (6, 11%), or that they have heterosexual orientation (5.9%) or were not sure (1.2%). The preliminary analysis showed that over half of the families had children through methods of planned parenthood including adoption, foster care, and methods of assisted fertilization (with known or anonymous donor), and, to lesser degree, the methods of surrogacy, and co-parenting. A slightly less than half of the families had children from previous heterosexual relationships. Family life is usually open without active hiding of LGBTIQ+ identity, but there are also often prevention, scanning of the environment, and assessment of the safety and threats, especially in vulnerable situations (e.g., women during pregnancy and childbirth). In summary, in Croatia, there are various families with LGBTIQ+ parents. Planned parenthood of LGBTIQ+ persons is mentally, physically and financially demanding, it is not legally regulated, but the visibility and support for these processes is increasing. LGBTIQ+ parents report different levels of experienced stigmatization, but everyday family life, experiences, relationships, and challenges can be compared with the experiences of other families. In other words, rainbow families are not different from other families in their dynamics, but their environment makes them different.

Keywords: LGBTIQ+ parents, Rainbow families, qualitative study

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STRUKTURA ESTETSKOG DOŽIVLJAJA

STRUCTURE OF AESTHETIC EXPERIENCE

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Stimulusna ograničenja dimenzija doživljaja lepog

Ova studija počiva na ideji da je doživljaj lepog složen fenomen koji obuhvata različite tipove, forme ili dimenzije lepote. U prethodnim faktorsko-analitičkim studijama identifikovali smo sedam dimenzija lepote: skladnu, elegantnu, upečatljivu, fantastičnu, čarobnu, opuštajuću i ljupku. U zadatku verbalnih asocijacija, ispitanici su povezivali ove dimenzije sa opštim svojstvima vizuelnog sveta. Na primer, skladna lepota je bila povezana sa koherentnim i jednostavnim vizuelnim strukturama, Fantastična lepota sa složenim, ali manje koherentnim objektima i scenama, a ljupka lepota sa malim ovalnim stvarima i bićima. U ovoj studiji ispitivane su specifičnije perceptivne asocijacije između ovih dimenzija lepote i četiri figuralna svojstva: simetrija, jednostavnost, raspršenost i okruglost. Četrdeset ispitanika (20 žena) procenjivalo je 16 apstraktnih formi na sedam petostepenih skala: skladno, elegantno, upečatljivo, fantastično, čarobno, opuštajuće i ljupko. Stimulusi su kategorisani kao simetrični ili asimetrični, jednostavni ili složeni, raspršeni ili kompaktni i obli ili ugaoni. Svaka potkategorija se sastojala od 8 stimulusa. Izvedene su multiple regresione analize, sa svojstvima stimulusa kao prediktorima i dimenzijama lepote kao zavisnim varijablama. Koeficijenti determinacije bili su značajni za sve zavisne varijable, osim za upečatljivu lepotu: skladno ($R^2 = .926$, $F(3,15) = 34.37$, $p < .001$), elegantno ($R^2 = .843$, $F(3,15) = 14.77$, $p < .001$), fantastično ($R^2 = .650$, $F(3,15) = 5.10$, $p < .014$), čarobno ($R^2 = .625$, $F(3,15) = 4.57$, $p < .02$), opuštajuće ($R^2 = .907$, $F(3,15) = 26.82$, $p < .001$) i ljupko ($R^2 = .845$, $F(3,15) = 15.03$, $p < .001$). Simetrija je bila najbolji prediktor procena skladne lepote ($\beta = .935$, $p < .001$). Najbolji prediktori procena elegantne, čarobne i fantastične lepote bili su simetrija ($\beta = .846$, $p < .001$, $\beta = .453$, $p < .027$, i $\beta = .677$, $p < .004$, respektivno) i raspršenost ($\beta = .332$, $p < .018$, $\beta = .584$, $p < .007$, i $\beta = -.401$, $p < .053$, respektivno). Najzad, procene opuštajuće i ljupke lepote značajno objašnjavaju simetrija ($\beta = .837$ i $\beta = .673$, $p < .001$, respektivno), jednostavnost ($\beta = .325$, $p < .005$ i $\beta = .402$, $p < .006$, respektivno), i oblost ($\beta = .305$, $p < .007$ i $\beta = .479$, $p < .002$, respektivno).



Rezultati ovog istraživanja pokazuju da je simetrija najznačajnije stimulusno svojstvo koje bilo nezavisno ili u kombinaciji sa drugim svojstvima determiniše različitih dimenzija doživljaja lepog. Pored toga, među samim dimenzijama lepote mogu se uočiti neke specifičnosti, ali i sličnosti obrazaca asocijacije sa stimulusnim svojstvima: (1) skladna lepota isključivo je određena simetrijom – viša simetrija, viši sklad, (2) elegantna, čarobna i fantastična lepota slične su po tome što rastu sa simetrijom i raspršenošću forme, dok su (3) opuštajuća i ljupka lepota srodne po tome što rastu sa simetrijom, jednostavnošću i zaobljenošću.

Ključne reči: dimenzije doživljaja lepog, stimulusna svojstva

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Stimulus constraints on the dimensions of the experience of beauty

The underlying idea of this study is that the experience of beauty is a complex phenomenon which encompasses various types, forms or dimensions of beauty. In previous factor-analytic studies, we identified seven dimensions of beauty: Harmonious, Elegant, Striking, Fantastic, Magical, Relaxing, and Cute. Through a verbal association task, participants associated these dimensions with general properties of the external world. For example, Harmonious beauty was linked to coherent and simple visual structures, Fantastic beauty to complex but less coherent objects and scenes, and Cute beauty to small oval entities. In the present study, we investigate the specific perceptual associations between these dimensions of beauty and four figural properties: Symmetry, Simplicity, Dispersion, and Roundness. Forty participants (20 females) were asked to rate 16 abstract forms on seven 5-point scales measuring Harmonious, Elegant, Striking, Fantastic, Magical, Relaxing, and Cute dimensions. The stimuli were categorized as Symmetric or Asymmetric, Simple or Complex, Disperse or Compact, and Round or Angular. Each subcategory consisted of 8 stimuli. Multiple regression analyses were conducted, with the stimulus properties as predictors and the dimensions of beauty as dependent variables. Coefficients of determination were significant for all dependent variables, except for Striking beauty. The results showed significant predictability for Harmonious ($R^2 = .926$, $F(3,15) = 34.37$, $p < .001$), Elegant ($R^2 = .843$, $F(3,15) = 14.77$, $p < .001$), Fantastic ($R^2 = .650$, $F(3,15) = 5.10$, $p < .014$), Magical ($R^2 = .625$, $F(3,15) = 4.57$, $p < .02$), Relaxing ($R^2 = .907$, $F(3,15) = 26.82$, $p < .001$), and Cute ($R^2 = .845$, $F(3,15) = 15.03$, $p < .001$) beauty. Symmetry was the best predictor for Harmonious beauty ($\beta = .935$, $p < .001$). Elegant, Fantastic and Magic dimensions were best predicted by Symmetry ($\beta = .846$, $p < .001$, $\beta = .453$, $p < .027$, and $\beta = .677$, $p < .004$, respectively) and Dispersion ($\beta = .332$, $p < .018$, $\beta = .584$, $p < .007$, and $\beta = -.401$, $p < .053$, respectively). Relaxing and Cute dimensions were significantly predicted by Symmetry ($\beta = .837$ and $\beta = .673$, $t = 5.68$, $p < .001$, respectively), Simplicity ($\beta = .325$, $p < .005$, and $\beta = .402$, $p < .006$,



respectively), and Roundness ($\beta = .305$, $p < .007$, and $\beta = .479$, $p < .002$, respectively). The study highlights that Symmetry is the key stimulus property that plays a crucial role in determining the beauty ratings of figures, either independently or in combination with other properties. Additionally, the dimensions of beauty can be grouped based on similar patterns of significant predictors: (1) Harmonious beauty is solely determined by Symmetry – higher the Symmetry, higher the Harmony, (2) Elegant, Magical, and Fantastic beauty increase with Symmetry and Dispersion, while (3) Relaxing and Cute beauty increase with Symmetry, Simplicity, and Roundness.

Keywords: dimensions of the experience of beauty, stimulus constraints

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VACe model estetskog doživljaja

Prema VACe modelu (Valence, Arousal, and Cognitive evaluation), estetski doživljaj je rezultat afektivnog doživljaja svih pojedinačnih značenja koja su aktivirana u umu posmatrača u trenutku posmatranja umetničkog dela. Estetski doživljaj obuhvata dve šire konstitutivne komponente – značenja koja se aktiviraju ili konstruišu u umu posmatrača prilikom posmatranja dela i afektivnu obradu koja se kontinuirano izvršava na svim aktiviranim značenjima. Tokom simpozijuma detaljnije će biti razmatrana struktura značenja i afektivnog doživljaja kao dve ključne komponente estetskog doživljaja. Prethodne studije su sugerisale da struktura značenja koja se aktiviraju tokom estetske evaluacije umetničkih dela može značajno da varira u zavisnosti od uzrasta, kulture, nivoa ekspertize ili prethodnog iskustva. Deca svoju estetsku procenu uglavnom zasnivaju na perceptivnim karakteristikama umetničkog dela (boje, predmeti, teme), dok se eksperti iz domena vizuelnih umetnosti uglavnom oslanjaju na kognitivna značenja konstruisana tokom posmatranja umetničkog dela (interpretacija, znanje, formalni aspekti umetničkog dela). Sledeće komponente u modelu su valenca, kognitivna evaluacija i pobudenost koje predstavljaju tri bazične dimenzije afektivnog doživljaja. Ove dimenzije se u okviru modela shvataju kao biološki zasnovani mehanizmi čija je uloga automatsko evaluiranje svih informacija bilo da potiču iz sredine ili iz samog organizma. U okviru modela linearnom kombinacijom tri afektivne dimenzije moguće je objasniti 91% - 98% varijanse estetskog doživljaja umetničkih dela kod ispitanika različitog uzrasta i ekspertize. Pored prikaza modela, u okviru simpozijuma će biti diskutovani i nalazi nekih skorijih istraživanja koji sugerišu da različite vrste značenja koja su aktivirana



tokom posmatranja umetničkog dela nemaju isti doprinos u estetskom doživljaju tih dela, a takođe i predloženi smerovi u kome se model može dalje razvijati.

Ključne reči: VACe model, valenca, pobuđenost, estetski doživljaj, umetnost

Valence, Arousal, and Cognitive evaluation model of aesthetic experience

According to the Valence, Arousal, and Cognitive evaluation (VACe) model, aesthetic experience is the result of the affective experience of all individual meanings activated in the mind of the beholder at the moment of perception of the artwork (visual artwork, music, etc.). Aesthetic experience includes two broader constitutive components - meanings that are activated or constructed in the mind of the viewer, and affective processing that is continuously executed on all activated meanings. During the symposium, the structure of the two components of aesthetic experience - meanings and affective experiences - will be discussed in more detail. Previous studies have shown that the structure of meanings activated during aesthetic evaluation of artworks can vary greatly depending on age, culture, level of expertise, or prior experience. Children base their aesthetic evaluation mainly on perceptual features of artworks (colors, objects, themes), whereas experts rely mainly on cognitive meanings constructed during the observation of artworks (interpretation, knowledge, formal aspects of artworks) – a phenomenon we named perception- to- cognition shift in the criteria of aesthetic evaluation of artworks. The next components of the model are valence, cognitive evaluation, and arousal, which are the three basic dimensions of affective experience. These dimensions are understood as biologically based mechanisms whose role is the automatic evaluation of all information, whether it comes from the environment or from the organism itself. Using a linear combination of three affective dimensions, it is possible to explain 91% - 98% of the variance in aesthetic experience of artworks among respondents of different ages and expertise. In addition to presenting the model, during the symposium we will discuss the results of some recent studies that suggest that different types of meanings activated during the viewing of a work of art do not contribute equally to the aesthetic experience of these works, and also suggest directions in which the model can be further developed.

Keywords: VACe model, valence, arousal, aesthetic experience, artworks



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Dimenzije estetskog doživljaja

Pre utvrđivanja strukture estetskog doživljaja važno je da dodemo do jasne i opšteprihvaćene definicije ovog iskustva u empirijskoj estetici. Međutim, trenutno



stanje je neusklađeno po pitanju šta je ovaj konstrukt, te je opravdanije govoriti o više različitih konstrukata nego o jednom. Ove različite doživljaje možemo porediti po najmanje tri dimenzije: objektu, atributima i subjektima. Prva dimenzija se odnosi na neslaganje šta je objekat u odnosu na koji se posmatra estetsko iskustvo. Da li su u pitanju estetski objekti (npr. lica, telo, pejzaži, tehnički proizvodi, neka umetnička dela) ili su u pitanju umetnički artefakti (umetnički objekti stvoreni ljudskim delovanjem, slike, skulpture...)? Estetski i umetnički objekti se samo delom preklapaju. Postoje kategorije koje su samo estetske, ali ne umetničke, kao i objekti koji su umetnički, ali ne i estetski (npr. redimejdovi, performansi, konceptualna umetnost, instalacije, da navedemo samo neke). Drugo pitanje je koji su atributi ovog konstrukta. Na jednom kraju estetsko iskustvo se posmatra kao retko, idealizovano, transcendentno stanje, koje se dešava u posebnim okolnostima (npr. muzeji ili galerije) pred posebnim objektima (npr. slike). Na drugom kraju je izjednačavanje estetskog iskustva sa uobičajenim emocionalnim iskustvima (najčešće emocije prijatnosti i dopadanja) koja se mogu desiti pred različitim, uključujući i ne-umetničkim objektima. Prvi kraj je dakle vrlo isključiv, dok je drugi previše inkluzivan – gotovo sve može biti estetsko iskustvo. Najzad, treća dimenzija se odnosi na subjekte koji procenjuju dela. Pitanje je da li se razlikuje estetski doživljaj osoba koja su zainteresovane za umetnost i dobro je poznaju (art eksperti) i doživljaj opšte populacije, koja najčešće nema dovoljno interesovanja i znanja o umetnosti. Ne postoje istraživanja koja nam mogu dati jasnu sliku u kakvom su međusobnom odnosu ove tri dimenzije.

Nakon što lociramo konstrukt estetskog iskustva u trodimenzionalnom prostoru možemo proučiti njegovu strukturu. Na primer, Čiksentsmihali i Roberts (1990) su svoje shvatanje estetskog doživljaja odredili kao duboko prožimajuće iskustvo (atribut) koje se javlja u susretu sa umetničkim artefaktima (objekat) kod umetničkih eksperata (subjekt). Nedavno je Dana Vanzer (2020) kreirala Upitnik estetskog iskustva baziran na pristupu Čiksentsmihala i Roberta, koji su tokom 2022-23. godine Stojilović i saradnici adaptirali. Istraživanje je obavljeno online, na prigodnom uzorku $N=514$ ispitanika, koji su činili većinom mladi ($M = 22.0$, $SD = 8.03$), ženskog pola (368, 72%), studenti (280, 55%) i sa umerenim interesovanjem za umetnost ($M = 4.0$, opseg 1-7). Rezultati srpske adaptacije su potvrdili da se upitnik sastoji od 4 dimenzije vezane za umetnost (perceptivna, emocionalna, kulturna i razumevanje) i 2 dimenzije toka (proksimalni uslovi i iskustvo). Upoređeni su faktorski modeli estetskog iskustva zasnovani na originalnom, bi-faktorskom i hijerarhijskom modelu.

Ključne reči: Estetski doživljaj, dimenzije, struktura

Dimensions of aesthetic experience

Before determining the structure of the aesthetic experience, it is important to arrive at a clear and generally accepted definition of this experience in empirical aesthetics. However, the current understanding lacks consistency, suggesting the presence of multiple constructs rather than a singular one. These experiences can be compared along three dimensions: objects, attributes, and subjects. The object dimension



examines the disagreement regarding whether the aesthetic experience occurs in relation to aesthetic objects or artistic artifacts. Aesthetic and artistic objects only partially overlap. There are categories that are only aesthetic but not artistic, as well as objects that are artistic but not aesthetic (e.g., ready-mades, performances, conceptual art, installations, to name a few). Another issue is related to the attributes of this construct. At one end, aesthetic experience is seen as a rare, idealized, transcendent state, which occurs in special circumstances (e.g., museums or galleries) in front of special objects (e.g., paintings). At the other end is the equating of the aesthetic experience with the usual emotional experiences (the most common emotions of pleasantness and liking) that can happen in front of different, including non-artistic objects. The first end is therefore very exclusive, while the second is too involved - almost anything can be an aesthetic experience. Finally, the third dimension refers to the subjects who evaluate the works. The question is whether the aesthetic experience differs between people who are interested in art and know each other well (art experts) and the general population, which usually does not have enough interest and knowledge about art. There are no studies that can give us a clear picture of the relationship between these three dimensions.

After locating the construct of aesthetic experience in three-dimensional space, we can study its structure. For example, Csikszentmihalyi and Roberts (1990) defined their understanding of aesthetic experience as a deeply permeating experience (attribute) that occurs in the encounter with artistic artifacts (object) in artistic experts (subject). In 2020 Dana Wanzer created the Aesthetic Experience Questionnaire based on the approach of Csikszentmihalyi and Roberts, that was adapted by Stojilović and colleagues in 2022-23. The research was conducted online on a convenience sample of $N=514$ participants, predominantly consisting of young individuals ($M = 22.0$, $SD = 8.03$), female (368, 72%), students (280, 55%), with a moderate interest in art ($M = 4.0$, range 1-7). The results of the Serbian adaptation confirmed that the questionnaire consists of 4 dimensions related to art (perceptual, emotional, cultural and understanding) and 2 flow dimensions (proximal conditions and experience). Factorial structures of aesthetic experience based on the original, bi-factorial and hierarchical models were compared.

Keywords: Aesthetic experience, dimensions, structure



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The dimensions of the subjective experience of dance

This paper explores the nature of aesthetic experience when dance is observed by non-dancers. It focuses on the relationship between the structure of the aesthetic and the structure of the physical experience which are followed by bodily sensations when



observing dance choreographies. To the exploration of this topic is approached from the perspective which assumes that aesthetic experience is multidimensional concept which can be quantified by using technique of the semantic differential developed by Charles Osgood and later applied in aesthetic domain by Daniel Berlyne. Applying this quantitative approach this research aims to investigate the dimensions of aesthetic and physical experience as well as bodily sensations when dance is observed by non-dancers. In the study participated 209 students aged between 17 and 27 ($M = 19.39$, $SD = 1.37$, 70.3% women) from Novi Sad Business School who did not have musical training or education as well as training of any kind in dance and physical activity. Their task was to assess six dance choreographies on the scales measuring different dimensions of the subjective experience when watching dance: Aesthetic experience (Dynamism, Affective Evaluation and Exceptionality), Physical experience (Action Tendency, Arousal and Relaxation) and Bodily sensations (Focus, Excitement and Embodied Anticipation). The results of series of regression analyses have shown that dimensions of Physical experience and Bodily sensations predict Aesthetic experience when watching dance. Dimension of Arousal positively predicts all dimensions of aesthetic experience – Dynamism ($\beta = .548$, $p < .001$) Affective evaluation ($\beta = .443$, $p < .001$) and Exceptionality ($\beta = .669$, $p < .001$) while Relaxation positively predicts only Affective evaluation ($\beta = .394$, $p < .001$) and Exceptionality ($\beta = .249$, $p < .002$). Moreover, dimension of Focus also positively predicts Aesthetic experience – Dynamism ($\beta = .478$, $p < .001$), Affective evaluation ($\beta = .365$, $p < .001$) and Exceptionality ($\beta = .409$, $p < .001$) while Embodied Anticipation positively predicts only Affective evaluation ($\beta = .242$, $p < .002$) and Exceptionality ($\beta = .252$, $p < .001$). The higher are the dimensions related to physical experience and the observer's body the higher is aesthetic experience when watching dance. It is concluded that subjective experience of dance is a phenomenon which has multidimensional structure where the cognitive, emotional, motivational and physical aspects are interrelated.

Keywords: watching dance, non-dancers, subjective experience, multidimensional structure



RANI RAZVOJ DECE U SRBIJI:
AKTUELNA SAZNANJA O PODSTICAJNOJ NEZI
U PORODICAMA DECE U NAJRANIJEM DETINJSTVU
SUPPORTING EARLY CHILDHOOD DEVELOPMENT IN
SERBIA: CURRENT KNOWLEDGE AND INNOVATIVE
PRACTICES IN BUILDING CAPACITIES
FOR THE NURTURING CARE

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Relacije responzivnog hranjenja i roditeljevog doživljaja brige u vezi sa hranjenjem dece u uzrastu od 0 do 6 meseci

Tranzicija u roditeljstvo predstavlja visoko stresan period u životnom ciklusu porodice i zahteva (između ostalog) intenzivnu adaptaciju na izazove koji uključuju brigu o novorođenčetu (uključujući i hranjenje). Kako postoje brojni faktori koji ostvaruju uticaj na doživljaj povišenog nivoa brige u ovom periodu, cilj ovog rada jeste da istraži kako je responzivnost vezana za rutine hranjenja povezana sa doživljenim nivoom brige u vezi ishranom bebe. Uzorak istraživanja čini 121 roditelj dece uzrasta do 6 meseci. 107 dece je dojeno dok je 14 hranjeno bočicom- adaptiranom formulom/izdojenim majčnim mlekom. Za istraživanje je korišćen on-line upitnik sačinjen za potrebe istraživanja koji sadrži pet dimenzija responzivnog hranjenja: prepoznavanje signala gladi, prepoznavanje signala sitosti, pravovremeno odgovaranje na potrebe deteta, iniciranje hranjenja i interakcija roditelj-dete tokom hranjenja (Kronbahov alfa koeficijent = .82). Doživljaj brige u vezi sa hranjenjem deteta operacionalizovan je takođe upitnikom sačinjenim za potrebe istraživanja (Kronbahov alfa koeficijent = .76). Ispitanici su odgovarali (na oba instrumenta) na skali Likertovog tipa od 1-4 procenjujući učestalost pojavljivanja različitih situacija u njihovoj porodici tokom rituala hranjenja deteta i pojavu doživljaja zabrinutosti oko različitih situacija vezanih za ishranu deteta (1- nikada, 4- sasvim). Rezultati ukazuju na to da dimenzije responzivnog hranjenja objašnjavaju 24% varijanse brige oko ishrane deteta (($R = 0.49$; $R^2 = 0.24$; $F(6, 121) = 33.14$; $p = .000$). Kao



kontrolna varijabla korišćen je način uzimanja hrane, koji ne ostvaruje efekat na doživljaj brige. Pojedinačni doprinosi (β) dimenzija responzivnog hranjenja su značajni na nivou $p \leq .000$ i iznose: prepoznavanje signala gladi .58, prepoznavanje signala sitosti .35, pravovremeno odgovaranje na potrebe deteta .29, iniciranje hranjenja i interakcija roditelj-dete tokom hranjenja .32. Dobijeni nalazi upućuju na pravilnost da razvoj veština responzivnog hranjenja kod roditelja potencijalno može umanjiti jedan segment brige roditelja u ovom osetljivom periodu razvoja porodice. Rezultati su diskutovani u kontekstu značaja podrške responzivnosti generalno, pa i responzivnog hranjenja, kako za razvoj deteta, tako i za blagostanje roditelja.

Ključne reči: roditeljski stres, responzivno hranjenje, rani razvoj, kvalitet brige

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Relationships between responsive feeding and parent's experience of stress related to feeding children aged 0 to 6 months

The transition to parenthood represents a high-stress period in the family life cycle and requires (among other things) intensive adaptation to the challenges of caring for a newborn (including feeding). As many factors that influence the experience of a heightened level of stress in this period, the main purpose of the research is to investigate relations between responsive feeding practices and perceived level of stress related to feeding the baby. The research sample consists of 121 parents of children aged up to 6 months. 107 children were breastfed while 14 were bottle-fed with adapted formula/expressed breast milk. The research used an online questionnaire created for research purposes that contains five dimensions of responsive feeding: recognition of hunger signals, recognition of satiety signals, timely response to the child's needs, initiation of feeding and parent-child interaction during feeding (Cronbach's alpha coefficient = .82). The experience of stress related to feeding the child was also operationalized by a questionnaire created for research purposes (Cronbach's alpha coefficient = .76). Participants responded (to both instruments) on a Likert-type scale from 1-4, assessing the frequency of occurrence of various situations in their family during the feeding routines the child and the estimated intensity of stress about various situations related to feeding the child (1- never/not at all, 4- completely). The results indicate that the dimensions of responsive feeding explain 24% of the variance in stress related to feeding the child ($R = 0.49$; $R^2 = 0.24$; $F(6, 121) = 33.14$; $p = .000$). As a control variable, The method of food intake (as a control variable) has no effect on the experience of stress. The individual contributions (β) of the dimensions of responsive feeding are significant at the $p \leq .000$ level and amount to: recognition of hunger signals .58, recognition of satiety signals .35, timely response to the child's needs .29, feeding initiation and parent-child interaction child during feeding .32. The obtained findings point to the possibility that the development of responsive feeding skills in parents can



reduce one segment of parental stress in this sensitive period of family development. The results are discussed in the context of the importance of supporting responsiveness in general, including responsive feeding practices, for the child's development, as well as for the well-being of parents.

Keywords: parenting stress, responsive feeding, early childhood, quality of care



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Responzivnost majki tokom igre sa detetom

Responzivna briga predstavlja centralni domen okvira podsticajne nege jer prožima sve druge domene, tj. različite kontekste i interakcije. Responzivnost predstavlja osnovu za prepoznavanje i odgovaranje na signale deteta - u vezi sa zdravljem deteta, adekvatnom ishranom, zaštitom, razvojem poverenja i kvalitetnih odnosa sa drugima, emocionalnim blagostanjem i prilikama za učenje. Rezultati dobijeni u okviru eksperimentalnih studija ukazuju da viši nivo responzivnosti ostvaruje efekte u pogledu veće autonomije u rešavanju problema, boljem govorno-jezičkom razvoju, kognitivnim veštinama i socioemocionalnim veštinama. Cilj ovog istraživanja bio je da se ispita samoprocena majki o responzivnoj uključenosti u brigu i negu deteta. Dodatno, ispitali smo i povezanost responzivnost majki sa nekim socio-demografskim varijablama. U istraživanju koje je deo veće studije, učestvovalo je 1084 majki dece uzrasta od 0 do 36 meseci iz nekoliko opština u Srbiji. Za ispitivanje responzivnost korišćen je Upitnik o responzivnoj interakciji (Survey questions on responsive interaction, F. Aboud, 2021) koji meri responzivnost roditelja u jednoj od 3 različite situacije: igra, čitanje ili kupanje. Skala ima 14 ajtema za svaku situaciju u okviru 2 dimenzije: kooperativnost i interferenciju u aktivnosti sa detetom (Koeficijent pouzdanosti instrumenta na našem uzorku iznosi .70). Velika većina majki izveštavala je o responzivnosti u toku igre sa detetom. Kada se pogleda prosečna mera responzivnost na celoj skali, ona iznosi 3.25 (na skali do 5), što govori u prilog relativno visokoj samoproceni roditelja o responzivnosti tokom igre sa detetom. Analiza na nivou stavki upućuje da za većinu roditelja igra sa detetom nije izvor stresa. Takođe, majke odgovaraju na pitanja deteta tokom igre (oko 80%) i pozitivno komentarišu detetovo ponašanje tokom igre (preko 90%). Ipak između 25 i 30% majki je tokom igre sa detetom instruktivno i direktivno, više nego responzivno. Za njih je igra sa detetom izvor stresa jer imaju previše drugih obaveza ili dete ne saraduje u igri. Drugim rečima, one remete spontanu igru deteta tako što insistiraju da dete odgovori na pitanje koje mu postave, određuju kojom igračkom će se dete igrati, usmeravaju dete kako da



se igra, u većini slučajeva ili povremeno moraju i da pokažu detetu kako da se igra. Postoji veza između responzivnosti i obrazovanja majki, tako da su obrazovanije majke i responzivnije, dok nije utvrđena veza sa ekonomskim statusom porodice. Analiza odgovora majki iz osetljivih grupa (romskog poduzorka), pokazuje značajno manju responzivnost majki tokom igre sa detetom.

Ključne reči: responzivnost, igra, roditeljstvo, rani razvoj

Zahvalnica: This research is funded by UNICEF project "KAP Study on Nurturing care and Playfull Parenting Practices"

Responsiveness of mothers during play with the child

Responsive care is the central domain of the Nurturing Care framework (WHO, 2018), because it permeates all other domains, i.e. different contexts and interactions. Responsiveness is the basis for recognising and responding to the child's signals - in relation to the child's health, nutrition, protection, developing trust and quality relationships with others, emotional well-being and learning opportunities. Results obtained in experimental studies indicate that a higher level of responsiveness achieves effects in terms of greater autonomy in problem solving, better speech-language development, cognitive skills and socioemotional skills. The aim of this research was to examine self-assessment of mothers' responsive involvement in child care. Furthermore, we investigated the correlation between mothers' responsiveness and certain socio-demographic variables. In the research, which is part of a larger study, 1084 mothers of children aged 0 to 36 months from several municipalities in Serbia participated. To examine responsiveness, the Survey questions on responsive interaction (F. Aboud, 2021) was used, which measures the responsiveness of parents in one of 3 different situations: play, reading or bathing. The scale has 14 items for each situation within 2 dimensions: cooperation and interference in activities with the child (Cronbach alpha on our sample is .70). The vast majority of mothers reported being responsive during playtime with their child. On average, the overall measure of responsiveness on a scale up to 5 was found to be 3.25, indicating relatively high self-assessment by parents regarding their responsiveness during play with their child. Additionally, the item-level analysis revealed that, for most parents, playing with their child does not cause significant stress. Also, mothers answer the child's questions during play (about 80%) and positively comment on the child's behavior during play (over 90%). However, between 25 and 30% of mothers are instructive and directive, more than responsive, while playing with their child. For them, playing with the child is a source of stress because they have too many other obligations or the child does not cooperate in the play. In other words, they disrupt the child's spontaneous play by insisting that the child answer a question they ask, determine which toy the child will play with, direct the child how to play, in most cases or occasionally have to show the child how to play. There is a relationship between responsiveness and mothers' education, so more



educated mothers are also more responsive, while no relationship with the family's economic status has been established. Analysis of the responses of mothers from vulnerable groups (Roma subsample) shows a significantly lower responsiveness of mothers during play with the child.

Keywords: responsiveness, play, parenting, early development

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Prilike za učenje dece u rutinama porodičnog života

Uvid u načine na koje dete participira u porodičnim rutinama, otkriva prilike za učenje temeljene na učešću deteta u rutinama u domaćinstvu i porodičnom životu. Stoga, cilj ovog rada jeste sagledavanje učestalosti i načina učešća dece predškolskog uzrasta u rutinama brige o domaćinstvu i drugim rutinama porodičnog života. Istraživanje je realizovano na uzorku od 334 roditelja dece koja pohađaju vrtić, prosečne starosti 35,7 godina (SD = 6.61). Za prikupljanje podataka korišćen je upitnik sačinjen za potrebe istraživanja. Za svaku od rutina porodičnog života, roditelji su pitani da li (po njihovoj proceni) dete u ovim rutinama učestvuje ili ne, a zatim i da odaberu neki od ponuđenih odgovora koji opisuju različit nivo participacije deteta (od „dekorativnog“-jednostavnog prisustva uz izvršavanje roditeljevih naloga, do suštinskih prilika da dete inicira, promišlja, odlučuje i aktivno se angažuje zajedno sa roditeljima). Prikupljeni podaci obrađeni su tematskom analizom i ukazuju da deca participiraju u pet rutina: rutine u vezi sa nabavkom (88,0% dece obuhvaćene uzorkom učestvuje), rutine u vezi sa ishranom i obrocima (95,8% dece iz uzorka učestvuje), rutine u vezi sa ličnom i higijenom prostora (97,9% dece iz uzorka učestvuje), rutine vezane za uređenje prostora (68,9% dece iz učestvuje) i rutine u vezi sa slobodnim vremenom i socijalnim životom porodice (96,7% dece iz uzorka učestvuje). Detaljna analiza odgovora u okviru pojedinačnih kategorija sugerise da deca najčešće participiraju tako što su prisutna, uz ograničenu samostalnost i izvršavanje naloga roditelja bez autonomnog odlučivanja, istraživanja, razumevanja svrhe i saradnje (npr. „Dete samostalno koristi kašiku“ je znatno češće spram „Dete može samostalno da doda nešto hrani koja mu se ne dopada (npr. neku drugu namirnicu koju voli, sir, pavlaku i slično)“, „Dete se samostalno umiva“ spram



„Dete samostalno odlučuje šta će obući“, „Nakon igre raspreda igračke u sobi“ spram „Dete bira boju zidova i raspored nameštaja u sobi“). Uočene su takođe rodne razlike u prilikama za učešće i učenje u rutinama domaćinstva, kao i u načinu učešća. Dobijeni nalazi sugerišu da porodicama nedostaje podrška kako bi sagledali mogućnosti da unutar svakodnevnih aktivnosti grade prilike za učenje deteta.

Ključne reči: rani razvoj, prilike za učenje u domu, podsticajna nega

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Opportunities for children to learn in the routines of family life

Insight into the ways the child participates in family routines reveals learning opportunities based on the child's participation in household routines and family life. Thus, the purpose of this research is to examine the frequency and nature of preschool children's participation in home care routines and other routines of family life. The study was conducted on a sample of 334 parents of children attending kindergarten. The average age of the parents is 35.7 (SD = 6.61). For each family routine, parents were asked whether or not (in their estimation) the child participates, and then were asked to select some of the responses offered describing different levels of child involvement (from „decorative“ - being present and behaving as instructed or asked by parents, to substantial opportunities for the child to initiate, reflect, decide, and actively engage with parents). Data was analysed through thematic analysis and indicate that children participate in five routines: Shopping routines (88% of children in this sample participate), routines related to nutrition and meals (95.8% of children in this sample participate), routines related to personal and indoor hygiene (97.9% of children in the sample participate), routines related to room design (68.9% of children in this sample participate), and routines related to family leisure and social life (96.7% of children in this sample participate). Detailed analysis of responses within each category suggests that children most often participate by being present, with limited independence, and by carrying out parents' instructions without making independent decisions, exploring, understanding purpose, and cooperating (e.g. “The child uses the spoon independently“ happens more often compared to “The child can independently add something to the food they do not like (e.g., another food they like, cheese, sour cream, etc.)“; “The child washes his/her face“ compared to “The child decides independently on what to wear“; “The child puts the toys away after play“ compared to “The child chooses the color of the walls and the arrangement of the furniture in his/her room“). Gender differences were found in the opportunities for participation and learning in household routines, as well as in the type of participation. Findings suggest a lack of support for families to identify opportunities for child learning in everyday activities.

Keywords: early childhood development, learning opportunities at home, responsive parenting, nurturing care



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Disciplinske prakse majki i društvene norme ranog razvoja

Mother's discipline practices and social norms of early development

The Theory of Planned Behavior suggests that parents' perceived social norms and expectations regarding corporal punishment (CP) use might be linked to their attitudes and disciplinary choices. Research supports this prediction as so perceived norms regarding CP use are associated with parents' attitudes. The focus of this study is mothers' discipline practice and its relation to perceived social norms of early childhood parenting. Other studies from Serbia show the first use of CP is around the child's second year. Therefore, early childhood is a high time for prevention attempts toward changing parents' attitudes and practices. The sample includes 413 mothers of 18-35 months old children from six Serbian municipalities. This research is a combination of qualitative and quantitative methodological approach. Mothers have reported which of 13 discipline practices, they used in the last month (for example, explaining, yelling, spanking, shaking) when children misbehave. Also, after a focus group with parents, we identified social norms of parenting practice during early development. A ten-items five-degree scale was constructed to assess mothers' perceived social norms of other parents and their agreement with them. Cluster analysis (Ward's method, squared Euclidean distance) shows three existing clusters that fit with the data study of discipline practices. Chi-square analysis was used to define the extracted group. The first group of mothers used only explanations as discipline practice in the situation of misbehaving. Most of the respondents in the second group agreed with the statement that their child is too little for any form of discipline (64% compared to 6-3% in other groups). Finally, the third group used explanation but also inclined more than others toward violent verbal, such as yelling (93%) and physical disciplining, such as spanking (45%). These mothers perceived two descriptive norms as more available in their surrounding compared to the others: 1. the belief that corporal punishment is necessary for disciplining two-three years old children ($F(2, 392) = 12.47, p = .000$, Sheffe test, $p < .01$) and 2. The belief that babies should be left to cry out, to avoid spoiling them ($F(2, 393) = 7.77, p = .000$, Sheffe test, $p < .01$). Participants from the second group have stronger beliefs that the mother's role is mostly to take care of the baby while fathers should dedicate themselves to work ($F(2, 378) = 6.19, p = .002$, Sheffe test, $p < .01$) and that being a good mother mean being committed completely to a child ($F(2, 378) = 6.19, p = .002$, Sheffe test, $p < .01$). Despite the body of research pointing to the negative side



of CP, our results reveal that a group of mothers start to use this form of discipline during a child's early development. Their behaviour is supported by social norms from the surroundings. The study highlighted that changing toward less violent discipline practices should include debugging the false beliefs about child-rearing behaviour.

Keywords: discipline practices, parenting, nurturing care, social norms, early development

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AKTUELNA SAZNANJA O POTREBAMA I
EFEKTIMA RANIH INTERVENCIJA U SRBIJI
CURRENT KNOWLEDGE ABOUT NEEDS AND EFFECTS OF
FAMILY-ORIENTED EARLY INTERVENTION
SERVICES IN SERBIA

Voditeljke / Moderators: Snežana Ilić, Ivana Mihić

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Family-Centered Early Childhood Intervention (FCECI) in Serbia

Family-centered Early Childhood Intervention (FECI) services help ensure the fulfillment of internationally mandated rights, strengthen inclusive societies, and support children and families. The situational analysis, jointly supported by the Open Society Fund and UNICEF Serbia, examined the status of early childhood services in Serbia. The goal of the Situational Analysis was to examine and identify opportunities for the development of FECI in Serbia. A quantitative approach was applied along with quantitative research that documented the existing infrastructure and the provision of early intervention services at that time in Serbia. The data was collected through focus groups with parents, observations in the field and interviews with key professionals from the health, education, and social protection sectors. Advisory board meetings are made up of all relevant experts from the University, non-governmental organizations, and relevant institutions that provide services to children from 0 to 6 years of life. Questionnaires were filled out by professionals who provide services to children with developmental disabilities and parents of children. There were 184 parents and 416 experts who participated.

The results indicate the agreement of experts and parents that parents are often the first to suspect that a child has developmental delays. More than half of parents and experts indicated that pediatricians should screen for developmental delays. There was less agreement on who should assess and provide support to children, and the presence of fragmented services in three different systems without coordination and collaborative work with the same goals for the child and family was observed. Only 55.5%



of children with developmental risks are registered as users of developmental counseling services. Appointments with the pediatrician usually last 15-30 minutes (59.4%). Almost a quarter of visits (23.9%) last fifteen minutes or less. The analysis also provides current procedures for identifying children who are likely to need these services, referring them to other system services, assessing eligibility, and the availability of services to support children with developmental disabilities and their families. Perceived systemic obstacles to the implementation of FECEI: a large number of children in relation to human resources, lack of time for screening, costs, and attitudes towards children with developmental disabilities. It is necessary to move to a transdisciplinary approach in providing services through a routine-based intervention (RBI) model; intersectoral harmonization of program standards and quality indicators; clear protocols and standardized practices to improve existing services.

Keywords: family-centered early intervention, family support, children with developmental disabilities



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Learning for Family-centered Early Childhood Intervention – supervision and mentorship in developing skills for FCECI

In the context of PORI supervision refers to the process of directing and supporting professionals working with children and their families. Some authors discussing family-centered ECI distinguish two types of practices – implementation practices (these are those practices implemented by trainers, mentors, and supervisors, which help practitioners acquire new knowledge and skills) and intervention practices (carried out by professionals as well as parents, applying methods and procedures that will lead to the desired outcomes).

The research was conducted with the aim of determining the perception of family centered ECI team members about the skills of mentors who supported them, as well as self-reception of mentors about their own activities. Two instruments were used in this research - the Mentor Evaluation Questionnaire (AOMP, 2016) (filled in by members of 13 newly formed family-oriented RI teams) and the Mentor Self-Evaluation Questionnaire (AOMP, 2016) (filled out by the mentors themselves). The mentor evaluation questionnaire contains seven items that describe the following mentor skills - empathy, constructive challenge, sharing experiences, confidentiality, professional friendship, helping to understand the process and listening. Respondents responded to



each offered item by marking the degree of agreement with the offered statement. The mentor's self-evaluation questionnaire covered seven areas (self-understanding, commitment to self-development, process management, relationship building, enabling insight and learning, outcome and action, and evaluation). For each of these areas, the mentor answered two questions: 1) What did I do well in addition to eight mentors, participants in this study were members of newly formed PORI teams (special educator, psychologists, social workers, pedagogues, educators, pediatricians) (N = 70).

The obtained results show that mentors in all examined areas managed to detect their strengths, but also sides that still need to be improved. Also, this analysis shows that during the provision of support, the mentors took into account the characteristics of participatory and relational practices, that they tried to respect different opinions, encourage independent problem solving and provide timely support, and that they continuously reflect on their actions. Over 88% of family-oriented RI team members agree that their mentors have shown empathy, encouraged them to think deeper, shared their experiences, secured a confidential relationship, and showed respect, providing them with help when needed.

Keywords: supervision, mentoring support, early childhood intervention



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Studija slučaja: promena pristupa psihologa u Porodično orijentisanom modelu ranih intervencija u radu sa decom/porodicama sa rizicima/teškoćama u razvoju

Rana intervencija se promenila „od posmatranja deteta sa posebnim potrebama kao ključnog primaoca usluga u posmatranje detetovih roditelja, negovatelja i porodice kao ključnih primalaca usluga i podrške.” (Raver i Childress, 2015, str. 32). Ona nadograđuje i pruža podršku i resurse za pomoć članovima porodice i negovateljima da poboljšaju učenje i razvoj dece kroz svakodnevne mogućnosti učenja. Istraživanja su pokazala da je rana intervencija efikasna ako je zasnovana na transdisciplinarnom timskom radu, stručnom znanju, participativnim i relacionim praksama, fokusirana na porodicu, a ne samo na dete i ako se odvija u prirodnim kontekstima učenja.

U skladu sa tim, cilj ovog rada je prikaz promena u pristupu psihologa koji primenjuje model Porodično orijentisanih ranih intervencija (PORI) kroz prikaz podrške porodici dečaka čije su potrebe prevazilazile jednu disciplinu. Zahvaljujući transdisciplinarnom timskom radu, porodica je kroz kontakt sa psihologom koji je bio Primarni pružalac



usluga (PPU) dobila podršku svih članova tima (u tradicionalnom pristupu bila bi upućena kod različitih stručnjaka).

Umesto dijagnostičke psihološke procene u ordinaciji koja bi bila usmerena na dečaka, u prikazanom slučaju procena je bila usmerena na porodicu, pri čemu su korišćeni Intervju zasnovan na rutinama (RBI) i AEPS (sistem procene i evaluacije za bebe i malu decu). Procena je radjenja kod kuće i u vrtiću, pri čemu su prikupljeni su podaci o funkcionisanju porodice i deteta, njihovim brigama, resursima i prioritetima, kao i o načinu na koji funkcioniše dete u svom prirodnom okruženju i u okviru svakodnevnih rutina. To je omogućilo majci da, uz stručna znanja i podršku PPU i članova tima, postavi ciljeve zajedničkog rada i učestvuje u izradi Individualnog plana podrške porodici (IPPP) kao punopravni član tima (u tradicionalnom pristupu psiholog bi, nakon završene dijagnostičke procene, podržavao i savetovao majku u o tome kako intervencije treba sprovesti).

Intervencija je sprovedjena u prirodnom okruženju što je u skladu sa naučno zasnovanom činjenicom da su najbolja mesta za sprovedjenje rane intervencije ona na kojima postoje prilike za spontano učenje i nije bila usmerena na dete nego na osnaživanje majke i vaspitača da koriste prilike za učenje u toku svakodnevnih aktivnosti i rutina, pri čemu se učenje odvijalo izmedju poseta stručnjaka.

Ciljevi koje je majka postavila u IPPP-u su ostvareni, u reviziji IPPP-a su postavljeni novi (od kojih su neki takodje već ostvareni), a majka i vaspitači su se osećali onaženo što upućuje na zaključak da je primena modela PORI u radu psihologa povećala efikasnost u radu sa decom/porodicama sa rizicima/teškoćama u razvoju.

Ključne reči: promena pristupa, rad psihologa, porodično orijentisane rane intervencije

Case study: Changing the psychologist's approach in the Family-oriented model of early interventions while working with children/families with developmental risks/difficulties

Early intervention has changed "from viewing the child with special needs as the key recipient of services to viewing the child's parents, caregivers and family as the key recipients of services and support." (Raver & Childress, 2015, p. 32). Early interventions are built on and provide support and resources to help family members and caregivers enhance children's learning and development through everyday learning opportunities. Research has shown that early interventions are effective if based on transdisciplinary teamwork, professional knowledge, participatory and relational practices, focused on the family, not just on the child, and if they take place in the natural learning environment.

Accordingly, this paper aims to show the changes in the approach of psychologists who apply the Family Oriented Early Intervention ("PORI") model through the presentation of support to the family of a boy whose needs exceeded one discipline. Thanks to



transdisciplinary teamwork, the family received the support of the whole team through contact with the psychologist who was the primary service provider (in the traditional approach, they would have been referred to different experts).

Instead of an in-office diagnostic psychological assessment that would be focused on the boy, in the presented case the assessment focused on the family, using the Routine Based Interview (“RBI”) and the AEPS (Infant and Toddler Assessment and Evaluation System). The evaluation at home and in kindergarten was conducted and data concerning the functioning of the family and the child, their concerns, resources, and priorities, and the way the child functions in its natural environment within daily routines was collected. This enabled the mother to, with the professional knowledge and support of the primary service provider and team members, set functional goals for joint work and participate in the development of the Individual Family Support Plan (“IPPP”) as a member of the team (in the traditional approach, the psychologist would, after completed diagnostic assessments, supported and advised the mother on how interventions should be implemented).

The intervention was carried out in a natural environment, in accordance with the scientifically based fact that the best places for early intervention are those where there are opportunities for spontaneous learning, and it was not aimed at the child, but at empowering the mother and the teacher to use learning opportunities during everyday life activities and routines, while learning took place between expert visits.

The mother’s goals set in the IPPP were achieved, new ones were set in the revision of the IPPP (some of which were also achieved), and the mother and educators felt satisfied, which leads to the conclusion that the application of the PORI model in the work of psychologists increased efficiency in working with children/families with developmental risks/difficulties.

Keywords: change of approach, work of psychologists, family-oriented early interventions.



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Socioemocionalna posvećenost i uključenost očeva u brigu o deci sa smetnjama u razvoju predškolskog uzrasta

Uključenost očeva u brigu o detetu i kvalitet brige povezani su sa grupom činilaca u domenu porodičnog funkcionisanja, partnerskog i koroditeljskog odnosa, kvaliteta odnosa otac-dete, te razvojnim ishodima deteta. Stoga, prvi cilj ovog istraživanja



podrazumeva sticanje uvida u generalnu uključenost i kvalitet brige očeva dece predškolskog uzrasta u našoj zemlji, bez obzira na karakteristike razvoja dece. Očevi dece sa smetnjama u razvoju prepoznati su kao vulnerabilna populacija, s obzirom na faktore rizika koji prate adaptaciju na nerazvojnu krizu uzrokovanu pružanjem brige detetu sa smetnjama u razvoju, kao i na činjenicu da je formalna (podrška od strane sistema zaštite) i neformalna podrška dominantno usmerena na majke. Prema tome, drugi cilj ovog istraživanja podrazumeva ispitivanje razlike u uključenosti u brigu i socioemocionalnoj posvećenosti između očeva dece sa smetnjama u razvoju i očeva dece tipičnog razvoja. Uzorak istraživanja činilo je 150 očeva dece predškolskog uzrasta, pri čemu je 75 očeva dece sa smetnjama u razvoju i 75 očeva dece tipičnog razvoja. Instrumenti primenjeni u istraživanju predstavljaju Upitnik o uključenosti oca (Inventory of father involvement – IFI) (Cronbach $\alpha = .91$) operacionalizovan putem devet domena uključenosti ali se zbog visoke korelacije među faktorima opravdano može koristiti kao jedinstvena mera učešća oca u brizi o deci i Upitnik o socioemocionalnoj posvećenosti roditelja detetu (PIC - Parental Investment in Child Questionnaire) operacionalizovan preko četiri dimenzije: prihvatanje deteta i roditeljske uloge; senzitivnost, responsivnost i znanje; separaciona anksioznost; zadovoljstvo roditeljskom ulogom i interakcijom sa detetom (Koeficijent pouzdanosti za celokupan upitnik iznosi .73; za pojedinačne subskale se kreće u rasponu od .68 do .73). Rezultati su pokazali da ne postoje statistički značajne razlike u uključenosti u brigu između očeva dece sa smetnjama u razvoju i očeva dece tipičnog razvoja ($t(148) = -1.01$; $p > .05$). Statistički značajne razlike između dve grupe očeva postoje u odnosu na jednu dimenziju konstrukta socioemocionalne posvećenosti – prihvatanje deteta i roditeljske uloge ($t(148) = -2.54$; $p = .01$; Cohen's $d = .42$), pri čemu je stepen prihvatanja viši u grupi očeva dece tipičnog razvoja. Statistički značajne razlike nisu dobijene na preostale tri dimenzije. Rezultati su prodiskutovani u kontekstu značaja prepoznavanja kapaciteta roditelja dece sa smetnjama u razvoju da prihvate i brinu se o detetu, te u domenu uključivanja ovog aspekta podrške u kreiranje individualnog plana podrške za porodicu i razvoja rodno balansiranog roditeljstva.

Ključne reči: uključenost očeva; socioemocionalna posvećenost; očevi dece sa smetnjama u razvoju;

Socioemotional investment and involvement of fathers in the care of children with developmental disabilities of preschool age

Fathers' involvement in child care and quality of care is related to a group of factors in the domain of family functioning, partnership, co-parental relationship, quality of the father-child relationship, and child's developmental outcomes. Therefore, the first goal of this research involves gaining insight into the general involvement and quality of care of fathers of preschool children in our country, regardless of the characteristics of children's development. Fathers of children with developmental disabilities are recognized as a vulnerable population, given the risk factors accompanying adaptation



to the non-developmental crisis caused by providing care to a child with developmental disabilities, as well as the fact that formal (support from the protection system) and informal support is dominantly aimed at mothers. Therefore, the second aim of this research involves examining the difference in involvement and socioemotional investment between fathers of children with developmental disabilities and fathers of typically developing children. The research sample consisted of 150 fathers of children of preschool age, with 75 fathers of children with developmental disabilities and 75 fathers of children with typical development. The instruments used in the research are the Inventory of Father Involvement (IFI) (Cronbach $\alpha = .91$) operationalized through nine domains of involvement, but due to the high correlation between the factors, it can be used as a unique measure of father involvement in childcare and the Questionnaire of the socioemotional investment of parents to the child (PIC - Parental Investment in Child Questionnaire) operationalized through four dimensions: acceptance of the child and the parental role; sensitivity, responsiveness and knowledge; separation anxiety; satisfaction with the parental role and interaction with the child (Reliability coefficient for the entire questionnaire is .73; for individual subscales it ranges from .68 to .73). The results showed that there are no statistically significant differences in involvement in care between fathers of children with developmental disabilities and fathers of children with typical development ($t(148) = -1.01$; $p > .05$). Statistically significant differences between the two groups of fathers exist in relation to one dimension of the construct of socioemotional investment - acceptance of the child and the parental role ($t(148) = -2.54$; $p = .01$; Cohen's $d = .42$), whereby the degree of acceptance is higher in the group of fathers of children with typical development. For the remaining three dimensions there are no statistically significant differences. The results were discussed in the context of the importance of recognizing the capacity of parents of children with developmental disabilities to accept and care for the child, as well as the inclusion of this aspect of support in the creation of an individual support plan for the family and the development of gender-balanced parenting.

Keywords: fathers' involvement, socioemotional investment; fathers of children with developmental disabilities



ODRŽIVE PRAKSE U MENADŽMENTU LJUDSKIH RESURSA SUSTAINABLE PRACTICES IN HUMAN RESOURCES MANAGEMENT

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Sustainable HRM practices and employee outcomes. A multilevel study across 54 countries

Sustainable human resource management is gaining importance in organizations due to its role in developing a sustainable work environment and well-being. This paper discusses the relationship between employee perceptions of sustainable human resource management practices and job satisfaction in 54 countries. Building on Social Identity Theory, we propose that sustainable HRM practices increase job satisfaction. We further propose that this relationship is moderated by employees' identification with the organization and country-level individualism-collectivism. Thus, we assume that national culture functions as a second-level moderator of the effect of sustainable HRM x organizational identification on job satisfaction. Findings from the multi-level analyses using data from 14,502 employees nested within 54 countries provided support for our hypotheses, that is, employee perceptions of sustainable HRM practices were positively associated with job satisfaction and this relationship was more pronounced for employees with lower levels compared to higher levels of organizational identification in individualistic rather than collectivistic countries. These findings bear important implications for both theory and practice.

Keywords: Sustainable HRM practices, national culture, organizaional identification, job satisfaction



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Sustainable Human Resource Management In Central Europe

The implementation of the concept of sustainable growth in the area of human resource management points towards the necessity to achieve not only the economic goals of an



enterprise, but also to meet and balance the needs of the employees. Sustainable human resource management should support the strategy of sustainable development, take care of employees' development, health, and well-being, facilitate environmentally friendly practices, support the development of employees' competencies and promote life-work balance.

As part of a broad international study conceived and coordinated by the Warsaw School of Economics, a survey based on a specially designed questionnaire was conducted in 54 countries during 2022. The sample included N= 14,502 respondents (an average of 268 per country). In the research, the following fundamental variables have been covered: green and sustainable HRM, job satisfaction, well-being, organizational identification, work engagement and values.

In this paper, a comparative analysis of the results from four countries will be made: Poland, Croatia, Slovakia and Serbia. As part of the former 'socialist countries', but also countries geographically located in the central part of Europe, these countries share some characteristics of historical and cultural heritage, and since the 1990s they have been undergoing a process of transition towards a democratic society and market economy. However, their paths (as well as initial characteristics) differed somewhat, so it is interesting to investigate how different the current situation and perceptions of 'sustainable HRM' are in these countries.

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Keywords: Human Resource Management, Sustainability, Central Europe, job satisfaction



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Sustainable and green HRM practices predict work engagement via eudemonic well-being

The purpose of this paper is to examine the relationship of sustainable human resource management practices (SHRM) and green human resources practices (GHRM) with employee well-being respectively using data from 211 employed respondents from Serbia in year 2022 (145 females, 68.7%). Study in Serbia was a part of the global SHRM project, with collaborators from 52 countries, aiming to test different cross-cultural HR practices. Drawing on Social Exchange Theory, this study investigates the mediating role of work engagement in the relationship between SHRM/GHRM practices and employee



well-being. Initial conceptual model did not adequately fit the data, $\chi^2(2) = 20.2$, $p < .001$, CFI = .91, TLI = .77, GFI = .1.00, AGFI = .98, RMSEA = .21, SRMR = .06. After several respecifications, the best fit to the data obtained model in which work engagement served as a dependent variable, and well-being served as a mediating variable, $\chi^2(2) = 9.75$, $p < .01$, CFI = .96, TLI = .90, GFI = .1.00, AGFI = .99, RMSEA = .14, SRMR = .04. Results suggests that, contrary to the hypotheses, well-being predicts work engagement better than the vice versa. Moreover, SHRM and GHRM exerted both positive direct effects on well-being, as well as indirect effect on work engagement. The results of this study help to clarify the interrelationship between the organization's efforts to shape employees' well-being and engagement.

Keywords: sustainable human resources, well-being, work engagement

Acknowledgement: This study is a part of the global project "Sustainable Human Resource Management – Cross-Cultural Empirical Study."



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Aristotel ili Machiavelli? Odrednice vjerovanja o prirodi moći među menadžerima i njihove veze sa stilom vođenja

Istraživanja iz organizacijske psihologije i menadžmenta pokazuju da su menadžeri uglavnom neuspješni u poslu vođenja ljudi. Primjerice, američka istraživanja pokazuju da više od polovice menadžera loše obavlja posao šefa, a čak tri četvrtine zaposlenih smatra da je ključni izvor stresa na radnom mjestu njihov neposredni nadređeni. ten Brinke i Keltner (2022) su nedavno predložili koncept laičkih teorija moći koji bi mogao doprinijeti razjašnjanju ovakvih nalaza. Prema tim autorima, kad razmišljaju o vođenju i moći, ljudi zauzimaju jedno od dva dobro poznata stajališta koja svoje uporište imaju u radu Aristotela (teorija suradničke moći) odnosno N. Machiavellia (teorija prisilne moći), a koja onda imaju snažne implikacije za njihovo ponašanje u ulozi nadređenog. Prema t. suradničke moći, na pozicije moći ljude dovodi briga za dobrobit grupe, a moć se koristi za osnaživanje svih njenih članova. Prema t. prisilne moći, moć je vrijedan resurs čije zadobivanje i održavanje zahtijeva manipulaciju i zastrašivanje te je povezano s prijetnjama prisilom i dominacijom nad drugima.

U našem istraživanju provedenom u sklopu projekta „Implicitna ličnost, donošenje odluka i vođenje u organizacijama“ koji je financirala Hrvatska zaklada za znanost ispitali smo veliki uzorak menadžera različitih razina (N = 238) i njihovih podređenih N = 662). Menadžere smo pitali o teorijama moći i nekim njihovim drugim psihološkim



karakteristikama, a podređene o stilovima vođenja nadređenih te njihovim stavovima prema radu.

U ovom izlaganju izvijestit ćemo o dijelu istraživanja čiji je cilj bio istražiti kako su teorije moći povezane s drugim psihološkim karakteristikama menadžera te njihovim stilom vođenja. Od psiholoških karakteristika, menadžere koji su sudjelovali u istraživanju pitali smo o njihovih Velikih pet faktora ličnosti, agresivnosti te izraženosti temeljnih motiva (postignuće, moć i afilijacija). Osim toga, menadžere smo pitali da procijene koliko često koriste transformacijski stil vođenja, stil za koji se pokazalo da ostvaruje najpozitivnije učinke za motivaciju i uspješnosti podređenih, a njihove podređene pitali smo da procijene koliko često njihovi šefovi pokazuju taj stil u interakciji s njima.

Rezultati istraživanja pokazali su da postoji relativno snažna negativna korelacija između t. suradničke i prisilne moći ($r = -.51$; $p < .001$) što upućuje da menadžeri obično podržavaju samo jednu od njih. Dok je t. suradničke moći bila relativno dobro određena osobinama ličnosti i motivima ($R^2 = .184$; $p < .001$), t. prisilne moći bila je uglavnom nezavisna od mjerenih psiholoških karakteristika ($R^2 = .031$; $p = .057$). Nadalje, t. suradničke moći korelirala je pozitivno sa samoprocjenama ($r = .28$; $p < .001$), a t. prisilne moći granično negativno sa procjenama transformacijskog stila vođenja ($r = -.13$; $p = .065$). U ovom izlaganju ćemo raspraviti spoznajne i praktične implikacije ovih nalaza.

Ključne reči: menadžment, teorije suradničke moći, teorije prisilne moći, osobine ličnosti, motivi, transformacijsko vođenje

Aristotle or Machiavelli? Determinants of beliefs about the nature of power among managers and their connection to the style of leadership (Novi Sad)

Research from organizational psychology and management shows that managers are mostly unsuccessful in the job of leading people. For example, some studies indicate that more than half of managers lead poorly and as many as three quarters of employees believe that the key source of stress in the workplace is their supervisor. ten Brinke and Keltner (2022) recently proposed the concept of lay theories of power that could clarify such findings. According to these authors, when thinking about leadership and power, people take one of two well-known positions based on the work of Aristotle (collaborative theory of power) and N. Machiavelli (coercive theory of power). According to the collaborative theory, people in positions of power are driven by concern for the group's well-being, and power is used to empower all its members. According to the coercive theory, power is a valuable resource, the acquisition and maintenance of which requires manipulation and intimidation and is associated with threats of coercion and domination over others.

In our research conducted as part of the project "Implicit personality, decision-making and leadership in organizations" funded by the Croatian Science Foundation, we examined a large sample of managers ($N = 238$) and their subordinates ($N = 662$). In this



presentation, we will report a part of the research whose goal was to investigate how the theories of power relate to other psychological characteristics of managers and their leadership style. In addition to their agreement with the theories of power, we asked the managers who participated in the research about their Big Five personality factors, aggressiveness and their basic motives (achievement, power and affiliation). Moreover, we asked managers to rate how often they use a transformational leadership style, the style that has been shown to have the most positive effects on subordinates' motivation and performance, and we also asked their subordinates to rate how often their bosses display the style in interactions with them.

The results of the research showed that there is a relatively strong negative correlation between collaborative and coercive theories of power ($r = -.51$; $p < .001$), which indicates that managers usually supported only one of them. While adherence to the collaborative theory of power was relatively well determined by personality traits and motives ($R^2 = .184$; $p < .001$), the support for the coercive theory of power was mostly independent of measured psychological characteristics ($R^2 = .031$; $p = .057$). Regarding the assessment of transformational leadership style, the collaborative theory correlated positively with self-ratings about transformational leadership style ($r = .28$; $p < .001$), and the coercive theory correlated marginally negatively with subordinates' ratings of transformational leadership style ($r = -.13$; $p = .065$). In this presentation, we will discuss the scientific and practical implications of these findings.

Keywords: management, theories of collaborative power, theories of coercive power, personality traits, motives, transformational leadership



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Soft power - does leaders' power motive relate to subordinate outcomes via political skill?

Leaders need a strong power motive that drives them to have impact on other people and to achieve organizational goals by working through them. Theory and research indicate that leaders' power motive works through their social competencies, which in turn predict work performance. The social competency that we focused on was political skill, given its particular use to leaders in building strong networks and engaging in subtle and convincing interactions with others. Recent work on political skill demonstrates its importance for successful leadership, but also calls for more research in understanding the dispositional antecedents of this construct. Therefore, our research question was whether leaders' power motive predicts leadership outcomes via their political skill.



We conducted a cross-sectional study on a sample of managers (N = 238) and their subordinates (N = 662). Managers reported their power motive and political skill, while subordinates reported their perceived levels of organizational support and psychological safety. To test our hypotheses, we used multilevel mediational analyses with Bayesian method of estimating credibility intervals. We did not find a significant total effect of the power motive on perceived organizational support (-0.00 (95% CrI [-0.232, 0.210])) and psychological safety (-0.08 (95% CrI [-0.176, 0.013])). However, we found that leaders' power motive was positively related to subordinates' perceived organizational support (0.07 (95% CrI [0.011, 0.139])) and psychological safety (0.06 (95% CrI [0.021, 0.119])) indirectly via political skill. Interestingly, while we did not obtain a significant direct effect of the power motive on perceived organizational support (-0.08 (95% CrI [-0.303, 0.137])), power motive had a negative direct effect on psychological safety (-0.15 (95% CrI [-0.246, -0.052])).

Recently, there have been calls for more research in examining personality antecedents of political skill. Given that interpersonal influence and building strong connections with other people are at the core of this social competency, the power motive is its theoretically meaningful antecedent. We propose that individuals with a strong power motive are more likely to develop and subsequently activate their political skill. Specifically, our findings suggest that leader political skill might be an important mechanism for translating a person's power motive into effective leadership behavior as evidenced by higher levels of subordinates' perceived organizational support and psychological safety. Although our conclusions are limited by a cross-sectional research design, our findings have interesting theoretical and practical implications for both leader assessment and development.

Keywords: power motive; leader political skill; leadership

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SEKCIJE USMENIH IZLAGANJA
ORAL SECTIONS



KLINIČKA PSIHOLOGIJA

CLINICAL PSYCHOLOGY

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Assessing the sensitivity of the Serbian translation of Inventory of Problems-29

According to the Diagnostic and Statistical Manual of Mental Disorders, malingering refers to the “intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives” (American Psychiatric Association, 2013, p. 726). Due to the high costs that malingering has for society, determining the credibility of a particular symptom presentation is of great importance. Clinical interviews and psychological tests may both be of help in that matter as they provide plenty of information clinicians can rely on when assessing possible malingering. Inventory of Problems-29 (IOP-29; Viglione et al., 2017) is a relatively new, self-administered test that can assist clinicians in evaluating the validity of clinical presentations related to posttraumatic stress disorder (PTSD), depression (D), anxiety, schizophrenia (Sch), and cognitive impairment. IOP-29 results with the False Disorder Probability score (FDS), with higher scores indicating lower symptom validity.

The present study aims to assess the sensitivity of the Serbian translation of IOP-29 using a mixed design with simulation. The same participant is required to answer the IOP-29 three times – 1. honestly; 2. simulating one of the three disorders (PTSD, D, Sch); and 3. randomly, without reading the questions. Such a design allows us to examine whether the IOP-29 FDS scores differ across groups of honest responders and those simulating different disorders. This between-group comparison will allow us to test the validity and generalizability of IOP-29 from one simulated disorder to another. Also, we will examine the differences between FDS scores obtained when respondents responded honestly and when they simulated and the differences between FDS scores in honest and random conditions (within-group comparisons).

The study is preregistered and more information can be found at

<https://doi.org/10.17605/OSF.IO/VF6MH>

Keywords: malingering; feigning; Inventory of Problems; IOP-29; symptom validity test



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„Vidi me, zbrini me“: stilovi partnerske dinamike u početnoj etapi partnerske terapije

Specifičnost partnerske terapije leži u tome što se fokus sa individualnih pomera na relacione procese, odnosno na dinamiku partnerskog odnosa. U prvoj etapi, cilj terapije je osveščivanje ključnih odlika dinamike para. U ovoj eksplorativnoj studiji (deo je šire studije o partnerskoj terapiji), usmerile smo se na mapiranje različitih stilova razmene koji se pojavljuju u početnoj etapi terapije para, pri čemu smo se vodile pitanjem: oko koje bazične teme se organizuje dinamika partnerske relacije? U studiji je učestvovalo šest heteroseksualnih parova (29–45 godina, ≥ 2 godine zajedno, 5 parova bez dece). Podaci su prikupljeni videosnimanjem druge terapijske seanse. Materijal za analizu bila je kontakt epizoda, definisana kao interakcija partnera o za njih relevantnoj temi, tokom koje je terapeutkinja zauzela ulogu posmatrača. Svaki par tretiran je kao studija slučaja, a kao dopunski metod korišćena je tematska analiza. Generisale smo tri teme, koje odgovaraju stilovima partnerske dinamike, a identifikovane su i dve varijante svakog stila. U interpretaciji podataka oslonile smo se na teoriju geštalt psihoterapije. Prvi stil je: „Vidi me, zbrini me“: poziv partneru da reguliše partnerku u nezavršenom poslu nailazi na otpor i granice. Dinamika para se organizuje oko partnerkinog nezavršenog posla, a par pregovara oko pitanja ko je odgovoran za zbrinjavanje partnerke i regulisanje odnosa. Varijante stila su: Kritikovanje i sučeljavanje suprotstavljenih pozicija („Meni treba ovo, ti radiš ono – ne, ti radiš to“) i Zagledanost u sebe spram povlačenja i pojačavanja diferencijacije („Okupira me prošlost – ne mogu da ti nadoknadim sve“). Drugi stil je: „Pojavi se u našem odnosu“: Poziv partneru kroz postidiivanje da potvrdi lojalnost odnosu nailazi na prihvatanje ili otpor. Dinamika para se organizuje oko partnerkinog doživljaja da partner, zbog lične pozadine, izneverava odnos, a pregovara se oko toga šta može da ostane lično, a šta mora da postane zajedničko. Varijante su: Konfrontiranje spram nedorečenosti i odbrambenosti („Bori se za naš odnos! – imam pravo na privatnost“) i Konfrontiranje i potonje međusobno razumevanje („Ti si ovakav, brinem za nas – razumem te“). Treći stil je: „Čik probaj da me izazoveš“: zahtev partneru da više učestvuje, ali isključivo praćenjem partnerke, nailazi na slab otpor ili neupitno slaganje. Dinamiku odlikuje izražen disbalans moći i organizuje se oko partnerkinog doživljaja da je partner ne podržava, a partneri pregovaraju oko toga kako odgovoriti na partnerkine duple poruke. Varijante su: Dominacija i optuživanje spram povlačenja i slaganja („Promeni se po ovom skriptu! – Da, draga, hoću, draga“) i Dominantnost kroz snažnu afektivnost spram pokušaja održavanja balansa u komunikaciji („Prestani da me



poništavaš – Molim te, umiri se“). U radu će biti diskutovane teorijske i praktične implikacije nalaza.

Gljučne reči: terapija para, dinamika partnerskog odnosa, geštalt terapija, kvalitativno istraživanje

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„See me, take care of me“: Styles of couple dynamics in the initial stage of couple therapy

The distinct quality of couple therapy is that its focus are not individual, but relational processes, and the aim of the first therapeutic phase is to become aware of the key features of the relationship dynamics. The goal of this exploratory study (as a part of larger research) was to map various styles of couples' interaction in the initial phase of therapy. To that aim, we asked: Which basic theme organizes the dynamic of couple relation? The participants were 6 heterosexual couples (29–45 years old, ≥ 2 years together, 5 without children). The data was collected through videotaping the second therapy session. The material for the analysis were contact episodes: couple interaction regarding the self-selected topic, during which the therapist entered the observer role. Couples were analysed as case studies, and thematic analysis was utilized as an auxiliary method. Three themes, i.e. styles of partnership dynamic were generated, and two variants for each of them. In the data interpretation we relied on theory of Gestalt therapy. The first style is: „See me, take care of me“: The one's appeal that the other regulates her needs is met with resistance and boundary setting. The relationship dynamic is organized around one's unfinished business, and the couple negotiates who is responsible for regulating the needs of the other and the ongoing relationship. Variants were: Critiquing and confrontation of opposing positions („I need this, you are doing that – No, you are doing that“) and Self-absorption vs. Withdrawal and differences accentuation ("I'm occupied by the past – I can't compensate you for everything"). The second style is: "Show up in our relationship": The request to the other expressed through shaming to confirm loyalty to the relationship is met with acceptance or resistance. The couple dynamics is organized around one's perception that the other, due to his background, is betraying the relationship, and the couple negotiates what can remain personal and what must become shared. Variants were: Confrontation vs. Vagueness and defensiveness ("Fight for our relationship! – I have the right to privacy") and Confrontation and subsequent mutual understanding ("You are like this, I worry about us – I understand you"). The third style is: "Challenge me, I dare you": One's request that the other participate more, but only by following, is met with weak resistance or unquestioned agreement. The dynamic characterizes a pronounced power imbalance and is organized around one's perception that the other does not support her. The pair negotiates how to respond to the dominant partner's double



messages. Variants were: Dominance and accusation vs. Withdrawal and acquiescence ("Change according to this script! – Yes, dear, I will, dear") and Dominance through strong affectivity vs. Trying to maintain a balance in communication ("Stop invalidating me – Please, calm down"). The paper will discuss the theoretical and practical implications of the findings.

Keywords: couple therapy, partnership dynamics, gestalt therapy, qualitative study

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Road to Hell is Paved with Good Intentions: Addicted Patients' Future Thinking during COVID-19 Pandemic

During pandemics, feelings of despair due to uncertainty and gloominess of one's future prospects cause deaths from suicide and substance abuse. Addicted people may represent a vulnerable population as they may exhibit dysfunctional attitudes and behaviors pursuing an unconscious goal to get infected to actualize their self-destructive drives.

A cross-sectional study held in April 2020 aimed to explore whether higher levels of hopelessness, impulsiveness, and Future Thinking (FT) deficits were linked to dysfunctional COVID-related attitudes, and whether positive Self-Defining Future Projections (SDFPs) helped to avoid them.

Sample. Group 1 (G1): 62 male addicted inpatients (F.10.2 – F19.2), mean age – 39.9(1.5). Group 2 (G2): 40 healthy male controls, mean age – 38.8 (1.9). Exclusion criteria: mental comorbidities and abstinence under 10 days. The Groups were balanced as to the age, $t(100) = -.469$; $p = .640$; Cohen's $d = .640$.

Method. Beck's Hopelessness Scale and Barratt's Impulsiveness Scale (BIS-11) measured corresponding variables. Two raters scored SDFP thematic content (Cohen's $\kappa=0.74$). SDFP valence, importance for identity, temporal distance, simulation frequency and psychological need satisfaction were self-rated on 7-point Likert scales. COVID recognition; COVID-related stress; fear of infection; readiness to use personal protection equipment (PPE); effect of fines and self-isolation on habitual actions were self-rated on 5-point scales.



Results. G1 had higher levels of impulsiveness ($U = 734.5$; $p = .001$) and hopelessness ($U = 733$; $p = .001$). Both Groups recognized the COVID-19 threat, expressed readiness to use PPE and change behaviors but more impulsive G1 participants were more reluctant to use PPE ($r = -.33$; $p = .010$), and more hopeless inpatients tended to resist changing habits under a threat of fines ($r = -.34$; $p = .006$).

SDFPs in G1 had a shorter temporal distance (2 months v 12 months, $U = 414$, $p = .001$); thwarted need for Autonomy ($U = 868.5$, $p = .040$); an interpersonal focus typical of self-destruction ($\chi^2(1) = 8$; $p = .010$) and lower positivity ($U = 855$; $p = .020$). In G2, SDFP importance for identity ($r = -.51$; $p = .001$) and Autonomy ($r = -0.38$; $p = .020$) levels were related to lower hopelessness. In G1, SDFP importance for identity correlated with readiness to use PPE ($r = .32$; $p = .010$); change behaviors under fines ($r = .34$; $p = .010$); self-isolation ($r = .43$; $p = .001$) and impulsiveness ($r = -.32$; $p = .010$).

Conclusion. The contradiction between reported intentions and behavioral outcome (being in a setting with a high risk of getting infected) may be due to FT deficits reinforcing fatalistic views on the future in the patients. The recognized threat of infection or punishment failed to preclude habitual engagement in buying and using substances, whereas higher impulsiveness could contribute to neglect of preventive measures and trigger risky behaviors. Guided simulation of self-relevant future images may be a valuable therapeutic and coping resource for this population.

Keywords: addiction, future thinking, self-defining future projections, hopelessness, impulsiveness



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Predictors of psychological difficulties and professional psychological help-seeking in Serbian youth

The aim of this study is to explore the predictors of psychological difficulties (PD) of youth from the general population in Serbia, and to investigate the predictors of professional psychological help-seeking (PPHS) in the sub-sample of youth with clinically indicative symptoms of at least one mental disorder measured. A total sample consisted of 231 participants from 18 to 30 years of age ($M_{age}=24.48$, $SD_{age}=3.37$, 47% males) recruited by a market research agency. Symptoms of ten disorders were measured –



depression (Patient Health Questionnaire-9), anxiety (Generalized Anxiety Disorder Screener-7), suicidal ideation (Suicidal Ideation Attributes Scale), mania (Altman Self-Rating Mania Scale), obsessive-compulsive symptoms (OCD; Obsessive-Compulsive Inventory-Revised), somatization (Somatic Symptom – Adult Patient), eating disorders (The Eating Disorder Examination Questionnaire), post-traumatic stress disorder (PTSD; Posttraumatic Stress Disorder Checklist and Life Events Checklist for DSM-5), dissociation (Brief Dissociative Experiences Scale), and prodromal symptoms (The Prodromal Questionnaire – Brief Version). Moreover, variables depicting demographic (gender, age), economic (socio-economic status), neighborhood (urbanity of settlement), environmental (traumatic experiences – Life Events Checklist for DSM-5), and social/cultural (social support – Multidimensional Scale of Perceived Social Support, education) domains, along with personal factors (coping strategies – Brief COPE, resilience – The Brief Resilience Scale) were collected. To explore PPHS, common barriers to care (Perceived Stigma and Barriers to Care) and experience with persons with mental health (MH) difficulties (The Reported and Intended Behaviour Scale) were assessed, while PPHS was measured by a single item (Have you ever sought professional psychological help?). A joint variable was computed, encompassing the PD experienced by each participant (i.e. a total number of screen-positive scores on measures of symptoms of mental disorders). The first regression model explained 44% of the variance of PD ($R^2_{adj}=.44$, $F(7,223)=26.410$, $p=.000$), with significant predictors being rural settlement ($\beta=-.12$, $p=.017$), previous traumatic experiences ($\beta=.26$, $p=.000$), lack of social support ($\beta=-.32$, $p=.000$), avoidant coping ($\beta=.17$, $p=.021$), and less pronounced resilience ($\beta=-.17$, $p=.003$). The second regression model was tested on a sub-sample of youth with clinically indicative symptoms of at least one mental disorder measured ($N=94$), with the criteria being lifetime PPHS. The model explained 26% of PPHS ($R^2_{adj}=.26$, $F(4,89)=9.143$, $p=.000$), showing that PPHS is less likely sought by males ($\beta=-.30$, $p=.002$), those having less experience with persons with MH difficulties ($\beta=-.24$, $p=.019$) and lacking information on where to get help ($\beta=.25$, $p=.020$). This study adds to the understanding of the MH of youth in Serbia and is discussed in terms of implications for comprehensive service provision.

Keywords: youth, mental health, psychological difficulties, mental disorders, professional psychological help-seeking

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KLINIČKA I SPORTSKA PSIHOLOGIJA CLINICAL & SPORTS PSYCHOLOGY

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Is it lonely at the top? Investigating predictors of loneliness in professional Serbian athletes

Professional sports demand a great deal of self-sacrifice and adaptive coping mechanisms to achieve the highest level of athletic performance. The road to success is often filled with obstacles, stress, emotional struggles, and significant physical and mental challenges. Research in sport psychology over the last two decades has focused more on the mental health of athletes. Therefore, understanding the factors that contribute to the sense of loneliness in professional athletes who compete at the highest level is a step towards recognizing factors that are detrimental to athletes' mental well-being.

The aim of this research is to determine the predictive role of life satisfaction, satisfaction with sporting achievement, functional and dysfunctional psychobiosocial states, and perceived stress on the feeling of loneliness in professional Serbian athletes. The sample consisted of 112 professional athletes (66.1% female) with an average age of 22.35 (SD=5.67), who had participated in individual and team sports for an average of 11.80 years in Serbia.

The athletes completed several questionnaires, including the Psychobiosocial States Scale (PBS-S, Ruiz et al., 2018), the Satisfaction with Life Scale (SWLS; Diener et al., 1985), the Perceived Stress Scale (Cohen et al., 1983), the Short De Jong Gierveld Loneliness Scale (De Jong Gierveld & Van Tilburg, 2006), and responded to a single-item question regarding their satisfaction with overall sporting results.

The results of the regression analysis demonstrate that satisfaction with life, satisfaction with sporting achievement, perceived stress, and functional and dysfunctional psychobiosocial states constitute a significant predictive model for loneliness in athletes ($F(106)=12.12, p=.001$), explaining 36.4% of the variance. Dysfunctional ($\beta=.366, p=.001$)



and functional psychobiosocial states ($\beta=-.274$, $p=.002$), as well as satisfaction with sporting achievement ($\beta=.178$, $p=.03$), have emerged as significant individual predictors of loneliness.

Athletes who experience a dysfunctional psychobiosocial state during sports and are more satisfied with their overall sporting achievement are more likely to feel lonely. These results suggest that an intense focus on sporting success and an ego-goal orientation can contribute to feelings of loneliness in professional athletes. Immersing oneself in the pursuit of being at the top can come at the cost of social support and a sense of relatedness in sports, thereby leading to more dysfunctional emotional states and feelings of loneliness. The findings provide a foundation for further investigation into the experience of different emotional states in professional athletes and highlight the need to consider the impact of the pressure to excel and be the best in sports on athletes' mental health.

Keywords: loneliness, mental health, psychobiosocial state, professional sports, elite sports, Serbian athletes, sporting achievement.



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Posttraumatic growth in athletes during COVID-19 pandemic from the framework of revised Reinforcement sensitivity theory: Is there a mediating role of coping strategies?

COVID-19 can be considered as a collective trauma, and like everyone else, the athletes in Serbia were also affected by a series of stressful events. However, it is known that extremely challenging circumstances sometimes may lead to positive psychological transformation, such as posttraumatic growth (PTG). At the same time, previous studies have found that behavioral approach system (BAS) plays an important role in physical activity, sports performance, and positive emotions. Yet, little is known how approach-avoidance motivational systems are related to the experience of PTG in athletes, nor is it known if coping strategies play mediating role between aforementioned constructs. Exploring these questions was the main aim of our study.

The research was conducted on 117 athletes ($M_{age}=29.95$, $SD=11.61$), 62.4% of which were male. We used the Reinforcement Sensitivity Questionnaire (RSQ; Smederevac et al., 2014) based on revised Reinforcement sensitivity theory (RRST), Posttraumatic Growth Inventory – Short Form (PTGI-SF; Tedeschi & Calhoun, 1996), and Brief COPE (Carver, 1997).



Significant differences in PTG were detected regarding gender, $t(106.40)=-2.42$, $p=.02$, Cohen's $d = .45$, with female participants scoring higher than male, and athlete status, $t(115)=-2.04$, $p=.04$, Cohen's $d = .39$, with professional athletes experiencing greater PTG than recreational. Behavioral inhibition system (BIS), BAS, flight, and freeze all correlated significantly and positively with PTG, but the highest correlation was detected between BAS and PTG, $r=.37$, $p<.001$. When examining association between RRST variables and coping strategies, the highest correlations were detected between BIS and avoidant, $r=.47$, $p<.001$, and BAS and problem-focused, $r=.41$, $p<.001$ / emotion-focused coping, $r=.54$, $p<.001$. Finally, we tested a mediation model with predictors being RRST variables, mediators being coping strategies (problem-focused, emotion-focused and avoidant), and the outcome being PTG. The partial mediation was detected in the relationship BAS - emotion-focused coping – PTG (direct effect 95%CI [.008; .116], indirect 95%CI [.008; .079], total 95%CI [.046; .144]) and full mediation was detected in the relationship flight - emotion-focused coping – PTG (indirect effect 95%CI [.002; .058]).

Our results showed that the approach-reward system has an important role in PTG in athletes during COVID-19 pandemic. However, an additional interesting finding was revealed: that avoidance-escape system in threatening conditions may also have a significant role in PTG, when emotion-focused coping is activated (acceptance, positive reframing, emotional support, religion, and humor.) This result points out that not only appetitive and goal-oriented, but also unpleasant states such as fear, may still result in adaptive mental health outcomes if there is an adequate emotional regulation strategy. This might be of special relevance for mental health professionals providing support to athletes.

Keywords: posttraumatic growth, athletes, COVID-19, revised Reinforcement sensitivity theory, coping



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Prediktori ortoreksije nervoze u sportaša

Ortoreksija nervozna (ON) odnosi se na opsesivnu usmjerenost na zdravu prehranu, a uključuje kompulzivno ponašanje i popratnu mentalnu opterećenost restriktivnim prehrambenim pravilima u svrhu postizanja optimalnoga zdravlja. Podrazumijeva ritualizirane obrasce prehrane, čije kršenje izaziva strah i tjeskobu, osjećaj srama i krivnje te pretjerano doživljavanje osobne nečistoće, što na kraju može navesti pojedinca na samokažnjavanje. Smetnje se javljaju ne samo na emocionalnom i ponašajnom planu već i na kognitivnom i/ili socijalnom planu. Opsesivna ponašanja povezana s hranom mogu



dovesti do klinički značajnih posljedica, uključujući oštećenja u psihološkom funkcioniranju i medicinske komplikacije, ali i teškoće psihosocijalnog i osobnog funkcioniranja. Korelati ON su bavljenje natjecateljskim sportovima, problemi vezani uz sportsku izvedbu i učestalo vježbanje te povijest poremećaja hranjenja i jedenja ili mentalnih poremećaja (npr. OKP, psihosomatski problemi, hipohondrija). Češća je kod pojedinaca koje karakterizira perfekcionizam, nisko samopoštovanje, emocionalna disregulacija, narcizam, samokritičnost i sklonost pretjerano visokim standardima te osjetljivost na pritisak medija i značajnih drugih.

Cilj je ovoga istraživanja bio ispitati odnos ON, perfekcionizma, ovisnosti o vježbanju, motivacije za vježbanje i zadovoljstva vlastitom slikom tijela na uzorku registriranih i rekreativnih sportaša.

U istraživanju je sudjelovalo 376 ispitanika (211 žena), u dobi od 15 do 69 godina ($M = 33.74$, $SD = 11.84$). Uzorak čini 140 registriranih sportaša (63 žene) i 236 rekreativnih (148 žena). Sportovi su klasificirani prema modificiranom modelu Martinsen i Sundgot-Borgen (2013) na sportove izdržljivosti (npr. trčanje, biciklizam), sportove usmjerene na izgled i težinu (npr. borilački sportovi, gimnastika), sportove s loptom (npr. nogomet, odbojka) i ostalo (npr. joga, jahanje). Istraživanje je provedeno online, a ispitanici su regrutirani kroz društvene mreže.

Registrirani sportaši pokazali su veću sklonost ON od rekreativnih ($t(248.7)=2.96$, $p<.01$), a sportaši koji se bave sportovima s loptom pokazuju veću sklonost ON od onih koji se bave sportovima iz kategorije Ostali ($(3, 58.92)=2.97$, $p<.05$). Prediktori ponašanja karakterističnog za ON kod sportašica i sportaša su ovisnost o vježbanju, perfekcionizam i ekstrinzični motivi za vježbanje (npr. Izgled i Kontrola težine), dok je kod sportašica važno i natjecateljsko bavljenje sportom.

Još uvijek ne postoji konsenzus oko definicije i dijagnostičkih kriterija ON te bi razvoj dijagnostičkih instrumenata primjerenih za upotrebu u općoj populaciji te posebno u populaciji sportaša, koja se čini još rizičnija za razvoj poremećaja prehrane i ON, trebao biti cilj budućih istraživanja. Dobiveni rezultati upućuju na potrebu za provedbom psihoedukativnih intervencija vezanih uz perfekcionizam te prehranu sportaša kako bi se spriječio razvoj poremećaja prehrane.

Ključne reči: ortoreksija nervoza, perfekcionizam, ovisnost o vježbanju, motivacija za vježbanje, zadovoljstvo vlastitom slikom tijela, sportaši

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Predictors of orthorexia nervosa in athletes

Orthorexia nervosa (ON) refers to an obsessive focus on healthy eating and includes compulsive behavior and the accompanying mental burden of restrictive dietary rules to achieve optimal health. It implies ritualized eating patterns, the violation of which causes fear and anxiety, a sense of shame and guilt, which can eventually lead the



individual to self-punishment. Disturbances occur not only on the emotional and behavioral level, but also on the cognitive and/or social level. Obsessive behaviors related to food can lead to clinically significant consequences, including impairments in psychological functioning and medical complications, as well as difficulties in psychosocial and personal functioning. Correlates of ON are participation in competitive sports, problems related to sports performance and frequent exercise, and a history of eating disorders or mental disorders (e.g. OCD, psychosomatic problems, hypochondria). It is more common in individuals who are characterized by perfectionism, low self-esteem, emotional dysregulation, narcissism, self-criticism and tendency to set excessively high standards as well as sensitivity to pressure from the media and significant others.

The aim of this research was to examine the relationship between ON, perfectionism, exercise addiction motivation to exercise and satisfaction with one's own body image in a sample of registered and recreational athletes.

376 participants (211 women), aged 15 to 69 ($M = 33.74$, $SD = 11.84$), participated in the research. The sample consists of 140 registered (63 women) and 236 recreational athletes (148 women). Sports are classified according to the modified model of Martinsen and Sundgot-Borgen (2013) into endurance sports (e.g. running, cycling), sports focused on appearance and weight (e.g. martial arts, gymnastics), ball sports (e.g. soccer, volleyball) and others (e.g. yoga, horse riding). The research was conducted online, and participants were recruited through social networks.

Registered athletes showed a greater tendency to ON than recreational ones ($t(248.7)=2.96$, $p<.01$), and athletes who play ball sports show a greater tendency to ON than those who play sports from the Other category ($(3, 58.92)=2.97$, $p<.05$). Predictors of behavior characteristic of ON in male and female athletes are addiction to exercise, perfectionism and extrinsic motives for exercise (e.g. appearance and weight control), while in female athletes competitive sports are also important.

There is still no consensus on the definition and diagnostic criteria of ON. Future research should focus on the development of diagnostic instruments applicable to the general population and especially to the athlete population, which seems to be even more risky for the development of eating disorders and ON. The obtained results point to the need to implement psychoeducational interventions related to perfectionism and the nutrition of athletes to prevent the development of eating disorders.

Keywords: orthorexia nervosa, perfectionism, exercise addiction, exercise motivation, body image satisfaction, athletes

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Stress generation in a non-clinical sample: A longitudinal design

According to the stress generation hypothesis, present symptoms lead one to experience even more stressors, thereby maintaining or worsening one's condition. The stress generation hypothesis was usually studied in the context of depression (Hammen, 1991). Not many studies examined this hypothesis in the context of paranoid ideation, even though one could expect that being suspicious and hostile toward others might lead to more stressors, especially interpersonal ones. This study aims to explore whether paranoid ideation predicts the number of stressors in time, over and above the earlier number of stressors.

The sample consisted of 224 participants (174 female, Mage = 29.02, SDage = 9.36) who filled several questionnaires online in two waves, one month apart. We used the Serbian Life Events Check-list – Student Form (SLEF-SF; Gavrilov-Jerković, et al., 2012) which consist of 54 stressors, sorted in 9 domains, (e.g. health stressors, family stressors, social support), as well as in two groups – independant and dependant. As a measure of paranoid ideation we have used a 9-item scale based on DSM-5 criteria for Paranoid personality disorder (Musić et al., 2022). We have performed several regression analyses using the number of stressors and paranoid ideation from wave 1 as predictors and the number of stressors from wave 2 as the criterion.

Results suggest that for the most of the types of stress, levels of paranoid thinking from the first wave were significant predictors of levels of stress in wave 2 beyond the number of stressors in wave 1: for health stressors - ($\Delta R^2 = .05$, $F_{change}(1, 218) = 13.62$, $p < .01$, $\beta = .24$, $p < .01$), partner relations - ($\Delta R^2 = .07$, $F_{change}(1, 221) = 18.89$, $p < .01$, $\beta = .27$, $p < .01$), family stressors - ($\Delta R^2 = .08$, $F_{change}(1, 221) = 20.93$, $p < .01$, $\beta = .29$, $p < .01$), wider support - ($\Delta R^2 = .10$, $F_{change}(1, 221) = 28.41$, $p < .01$, $\beta = .32$, $p < .01$), threat - ($\Delta R^2 = .03$, $F_{change}(1, 221) = 7.02$, $p = .009$, $\beta = .16$, $p < .01$), existential stressors - ($\Delta R^2 = .02$, $F_{change}(1, 221) = 5.61$, $p = .02$, $\beta = .15$, $p = .02$), dependant stressors - ($\Delta R^2 = .09$, $F_{change}(1, 221) = 25.98$, $p < .01$, $\beta = .31$, $p < .01$), independant stressors - ($\Delta R^2 = .09$, $F_{change}(1, 221) = 23.31$, $p < .01$, $\beta = .30$, $p < .01$), overall stressors - ($\Delta R^2 = .094$, $F_{change}(1, 221) = 28.22$, $p < .01$, $\beta = .32$, $p < .01$).

The results suggest that paranoid ideation significantly predicts dependent and independent future stressors, thus partially supporting the stress generation hypothesis in nonclinical paranoia. It is plausible that some characteristics of people who engage in paranoid ideation contribute to them experiencing more dependent stressors. Possible explanations for the prediction of independent events are also discussed. While stress



may contribute to the exacerbation of paranoid thoughts, our study raises the possibility that paranoid ideation itself contributes to experiencing more stressful life events, that may lead to even higher levels of paranoia.

Keywords: stress generation, paranoid ideation, non-clinical sample



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Profiles of mindfulness skills in chronic somatic patients and healthy individuals

Although there is a lot of studies showing beneficial effects of mindfulness-based techniques on mental and physical health, little is known about mindfulness processes in somatic, especially chronically ill patients before any psychological treatment. The question remains whether illness compromises the natural ability of a person to mindfully react to her inner and outer environment: to observe and describe these experiences and to cope with negative emotional states without reacting or judging it. Our main goal was to explore differences between mindfulness processes in healthy and chronically ill patients, as well as specific patterns of mindfulness processes in two types of chronic disease patients comparing them to those of healthy individuals. Patients with relapsing-remitting multiple sclerosis (MS; N = 113, 36.3% male, Mage = 39.75, SD = 9.35) and with chronic pain of different localization (CP; N = 116, 31% male, Mage = 46.47, SD = 11.09), as well as a healthy control group of students (HC; N = 95, 17, 9% male, M = 21.08, SD = 2.38) filled out demographic/anamnestic data questionnaire and The Five Facet Mindfulness Questionnaire (FFMQ). FFMQ measures the following dispositional mindfulness tendencies: observing, describing, acting with awareness, nonjudging of experiences and nonreacting to inner experiences. Three groups were compared using the Profile Analysis in the SPSS repeated measures ANOVA section. Results show that groups did not differ in mean levels on five mindfulness tendencies (levels hypothesis), $F(2, 322) = .01, p = .91$, nor by score patterns within each group (flatness hypothesis, $F(4, 319) = .05, p = .99$). However, the patterns of mindfulness facets differed significantly among groups (parallelism hypothesis), $F(8, 640) = 5.81, p < .00, \eta^2 = .07$). The HC group is significantly better in nonjudging their experiences than both patient groups. However, the HC group is the worst in describing and nonreacting to inner experiences.



The MS group is the best in describing their experiences, while the HP group had higher results on Observing scale than other groups, but the lowest on nonjudging of their experiences. Our results suggest that basic mindfulness skills are differently patterned in chronic somatic patients than in healthy individuals. The strength of healthy individuals is that they do not judge their experiences. Even though HC may react to their sensations more intensively (low nonreacting to inner experiences), accepting their thoughts, emotions and sensations without catastrophic interpretations perhaps protects them from dealing with those inner issues frequently and for prolonged periods. On the contrary, chronically ill patients are, probably due to their long-term dealing with somatic complaints and reactions to them, better in observing, describing or both, but deficient in accepting them mindfully. This implies that the central issue in mindfulness therapy with chronic patients should be accepting.

Keywords: mindfulness, chronic pain, multiple sclerosis, profile analysis



PSIHOLOGIJA LIČNOSTI PERSONALITY PSYCHOLOGY

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The Dark Tetrad traits and emotional regulation strategies in the prediction of moral disengagement

Studies on the relationship between the mechanisms of moral disengagement (MD) and the Dark Triad/Tetrad (DT) uncovered a pattern of association that is consistent across all dark traits. The emotional deficits of the DT have been illuminated by previous research on how individuals with high DT scores regulate their emotions. Investigating the connection between the DT and emotion regulation may yield additional information pertinent to a deeper comprehension of what drives the use of MD mechanisms. This study aims for additional clarity in exploring the role of emotional regulation strategies in the relations between the DT traits and MD domains.

The sample includes 500 participants (73% females) aged 18 to 26 ($M = 20.8$, $SD = 2.2$). The following questionnaires were used: Mechanisms of Moral Disengagement (MMDS), the Emotion Regulation Questionnaire (ERQ), and the Short Dark Tetrad (SD4).

At the level of the correlations, positive associations were found between cognitive reappraisal, Machiavellianism, and narcissism, and negative associations between cognitive reappraisal, psychopathy, and sadism. Emotional suppression positively correlates only with Machiavellianism. MD domains positively correlate with DT traits, but only the domain of minimization of the role of the agent, and the domain of blaming the victim found positive associations with emotional suppression.

The two series of hierarchical regression were made to test the contribution of the DT traits and emotion regulation strategies on the MD domains of blaming the victim and minimization of the role of the agent.

As a result of the regression analysis for the MD domain of minimization of the role of the agent, emotional suppression ($b = 0.13$, $p < .01$) was the only predictor with no



contribution of the DT traits. The explained variance for the whole model was low (4%), and inclusion of the emotional regulation strategies didn't add greater explained variance.

The MD domain of blaming the victim had two significant predictors, sadism ($b = 0.36$, $p < .001$) and emotional suppression ($b = 0.09$, $p < .05$), accounting for 23% of variance. The sadism added to the first step has remained the lead predictor.

The DT traits have a different association with emotional regulation strategies. Suppressing the expressions of an already established emotional reaction positively relates only to higher Machiavellianism. The results contradict the previous facts that Machiavellianism is unrelated to emotional regulation strategies and narcissism is related only to cognitive reappraisal. The results about psychopathy and sadism are in line with previous studies. Despite the link between DT traits and MD domains, the additional contribution of emotional regulation strategies in the prediction of MD domains is low. Sadism and emotional suppression were revealed as predictors only for the MD domain, describing the mechanisms of dehumanization and the attribution of blame for the harm caused to the abused person.

Keywords: Dark Tetrad, Dark Triad, Machiavellianism, narcissism, psychopathy, sadism, cognitive reappraisal, emotional suppression, moral disengagement



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Polne razlike u hipersenzitivnosti mladih

Gender differences in young people's sensitivity

Sensory processing sensitivity is a temperament trait that represents deeper processing of information by the brain. People with this trait are called highly sensitive individuals, and about 20% of the general population is considered highly sensitive. This means that highly sensitive people process information more deeply compared to people who are not highly sensitive (the rest of the population). The original scale used to measure high sensitivity is the Highly Sensitive Person Scale (Aron & Aron, 1997). However, research in different cultures has shown that this scale has a different factor structure in different cultures. Therefore, a modification of this scale is necessary. For this reason, a one-dimensional sensitivity scale SHS-15 was developed for the Serbian population (Rajić & Vasić, 2023). The original scale for highly sensitive people served as the basis for the creation of this scale, and only a few items were modified to better adapt it to the Serbian language. To test whether the widespread assumption that women are more sensitive than men is justified, a one-dimensional sensitivity scale SHS-15 ($\alpha = .81$; $\omega = .81$;



Rajić & Vasić, 2023) was applied to a sample of 700 respondents (60% female) aged 18 to 30 years ($M = 22.25$; $SD = 3.16$). To our knowledge no previous research has been conducted with this aim. Data were analyzed using a canonical discriminant analysis in which the initial variables were binary gender variable and standardized and normalized scores on the items of the SHS-15. A statistically significant discriminant function was obtained ($\lambda_w = .89$; $\chi^2 = 82.99$; $df = 15$; $p \leq .001$) with a canonical correlation of .34. The Box's M test for homogeneity of covariance matrices was not statistically significant ($M = 143.66$; $p = .10$), indicating that the differences in young people's sensitivity were quantitative rather than qualitative. Almost all items of the SHS-15 contribute significantly to the structure of the discrimination function. The only two items that do not contribute significantly represent increased sensitivity to auditory and visual stimuli. The same is true for the univariate tests of statistical significance of gender differences at the level of individual items. The means of the different gender subsamples differ by almost three-quarters of a standard deviation. The distributions of the results on the discrimination function within different gender subsamples are symmetrical and resemble a normal distribution. However, extreme results were found in a female subsample. These results suggest that the common belief that women are more sensitive than men is empirically justified. Furthermore, these results demonstrate that the SHS-15 is an instrument that captures equally well the full range of individual differences in sensitivity across gender.

Keywords: sensitivity, gender differences, canonical discriminant analysis

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A network analysis of sensitivity questionnaire

Scientific literature states that highly sensitive people represent a minority of the population with a more sensitive nervous system (Aron & Aron, 1997). Their main characteristics include deeper processing of information, higher emotional reactivity, a tendency to feel easily overwhelmed, and sensitivity to subtleties (Aron et al., 2005; Jagiellowicz et al., 2011). Even though there is a growing body of research on sensitivity, several aspects of this trait have not been explored. One of these aspects is the network structure of this phenomenon, which could provide information about intervention targets. According to network analysis, a psychological phenomenon is a complex system in which each component interacts with every other, without assuming a common cause (Borsboom & Cramer, 2013). The aim of this study was to examine the



structure of sensitivity within the measurement space of the one-dimensional Sensitivity Scale SHS-15 ($\alpha = .81$; $\omega = .81$; Rajić & Vasić, 2023). This scale was presented to a convenient but sufficiently large snowball sample of 686 respondents aged 18 to 30 ($M = 22.25$; $SD = 3.16$). Due to redundancy, one item was excluded from further analysis. A network analysis was performed using Spearman correlation with the regularized EBICglasso estimation method ($\Gamma = .50$; $\Lambda = 100$), which yielded a network with 14 nodes and 62 non-zero out of a maximum 91 edges. As expected, all relationships in the network were positive, with the strongest one observed between two items indicating mental inhibition and inertia ($r = .22$, 95% CI [.15, .29]). Based on the standardized estimation of the three centrality measures, it can be concluded that the mental inhibition item stands out as central in the network of initial sensitivity indicators (strength – 2.50, closeness – 1.92, betweenness – 2.99). The results of predictability analysis showed that, on average 20% of the variance of the nodes can be explained by their mutual influence. The nonparametric bootstrap on 1000 samples showed lower edge-weight accuracy, but satisfactory stability of edge-weight ($CS = .44$), strength ($CS = .52$), closeness ($CS = .44$), and betweenness ($CS = .52$). Furthermore, it was determined that most of the edges are not significantly different from each other, that the edge between the items of mental inhibition and inertia is not significantly different from 11 edges, and that the node strength of the item of mental inhibition is significantly different from others. Based on these results, it can be concluded that mental inhibition and inertia, serving as protection against feeling overwhelmed, should be the main targets of intervention in sensitivity.

Keywords: sensitivity, network analysis, mental inhibition

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Anksioznost, ali ne i neuroticizam, predviđa otkucaje srca kao reakciju na pogreške

Zbog izraženije motivacije približavanja, impulzivni pojedinci jače reagiraju na znakove nagrađivanja poput uspjeha u zadatku. Nasuprot njima, anksiozni pojedinci, kojima je sustav motivacije izbjegavanja izraženiji, snažnije reagiraju na znakove kazne ili neuspjeha. Cilj ovog istraživanja je ispitati ulogu dimenzija anksioznosti i neuroticizma u aktivaciji autonomnog živčanog sustava pri suočavanju s neuspjehom ili greškama. Istraživanje je provedeno na uzorku od 81 sudionika (od čega 46 ženskog i 35 muškog spola) studentske populacije. Za izazivanje neuspjeha, korištena je računalna igrice The



Frustration Game koja predstavlja igricu labirinta kojeg sudionik treba cijelog proći s mišem bez dodirivanja zidova. Svaki put kada se dotakne zid, sudionik se vraća na početak labirinta. Broj grešaka, izražen kao broj dodirivanja zidova, korišten je kao varijabla koja moderira povezanost između otkucaja srca i osobina ličnosti - neuroticizma i anksioznosti. Moderatorskom regresijskom analizom pokazalo se kako je anksioznost pozitivni prediktor broja otkucaja srca pri većem broju grešaka ($b = 0.05$, $se = .02$, $t = 2.21$, $p < .05$), dok se isti efekt nije pronašao za neuroticizam ($b = -0.05$, $se = .03$, $t = -1.46$, $p > .05$). Rezultati ukazuju na nužnost uvažavanja nijansi između osobina koje pripadaju spektru negativnog afektiviteta u istraživanjima biološke osnove ličnosti u laboratorijskim uvjetima.

Ključne reči: anksioznost, neuroticizam, otkucaji srca, moderator, greške

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Anxiety, but not neuroticism, predicts heart rate in response to mistakes

Impulsive individuals respond more strongly to cues of reward, such as success at a task, because of their strong approach motivation. In contrast, anxious individuals, whose avoidance motivation is more pronounced, respond more strongly to cues of punishment, such as failure on a task. The aim of this study is to investigate the role of anxiety and neuroticism in the activation of the autonomic nervous system in dealing with failure. The study was conducted with 81 students (46 women and 35 men). To induce failure, the computer game The Frustration Game was used. This involves a maze through which the participant must run with the mouse without touching the walls. Each time the wall is touched, the participant returns to the beginning of the maze. The number of errors, expressed as the number of times the wall was touched, was used as a moderator variable between heart rate and the personality traits anxiety and neuroticism. The moderator regression analysis showed that anxiety was a positive predictor of heart rate as a function of a higher number of mistakes ($b = 0.05$, $se = .02$, $t = 2.21$, $p < .05$), while the same effect was not found for neuroticism ($b = 0.05$, $se = .02$, $t = 2.21$, $p < .05$). The results suggest that the nuances between traits belonging to the spectrum of negative affectivity need to be taken into account when examining the biological basis of personality in laboratory settings.

Keywords: anxiety, neuroticism, heart rate, moderator, mistakes



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One more bead just to be sure: decision-making and intolerance of uncertainty

Intolerance of uncertainty (IU) is a trait-like construct representing an individual's aversive response to ambiguous situations. When there is not enough information, some people tend to overestimate the probability of negative outcomes and underestimate one's capability to handle such outcomes. Because of the relevance of the amount of information for those with high IU, some authors suggested that the Beads Task (BT) can be used as a behavioral measure of IU. Within this task, participants are presented with two and three jars filled with beads of different colors. After being informed about the ratio of the colors of the beads within each jar, participants had to draw up to 20 (or 30) beads and decide from which jar the drawn beads came. Thus, the outcome variables were draws-to-decision (DTD; the number of drawn beads before feeling ready to solve the task) and time taken to reach the decision (T). People with high IU may rush to answer because they want to resolve the uncertainty as quickly as possible. Thus, they will draw a small number of beads before answering. The opposite scenario is also possible – people with high IU will require more information/evidence (i.e., will draw numerous beads) before feeling “certain“ about their decision. The aim of the present study was to test the validity of the Serbian version of the BT as a behavioral measure of IU.

Eighty-five study participants ($M = 30.29$, $SD = 10.62$; 68.2% female) completed each of the four BT conditions, with conditions varying in task difficulty/level of uncertainty. Three conditions had two jars where the ratio of color 1 and 2 of the beads was a) 85-15; b) 60-40; c) ??-?? (unknown). The fourth condition had three jars, with the colors' ratio being 44-28-28. After each condition (before getting the feedback), participants answered the question “How distressed do you feel right now?” and completed the Intolerance of Uncertainty Scale – 11 (Mihić et al., 2014).

Study results showed that trait IU was a significant predictor of distress in 85-15 condition ($F(1,83) = 20.03$, $R^2 = .19$, $\beta = .44$, $p < .001$), 60-40 condition ($F(1,83) = 33.81$, $R^2 = .29$, $\beta = .54$, $p < .001$), 48-28-28 condition ($F(1,83) = 23.20$, $R^2 = .22$, $\beta = .47$, $p < .001$), and ??-?? condition ($F(1,83) = 25.32$, $R^2 = .23$, $\beta = .48$, $p < .001$). However, contrarily to the idea that the BT is a behavioral measure of IU, the IU was not significantly related neither to DTD nor T. Our results are in line with those that Jacoby reported in her study (2013). It



seems that the uncertainty of the BT conditions as well as waiting for feedback on task performance can induce decision-related distress. Given that IU is a risk factor for anxiety disorders, the results of regression analyses are not surprising. Also, knowing that the study sample was comprised of individuals from the general population it could be that they have good coping skills that buffer the potential negative effects of IU on the decision-making process.

Keywords: intolerance of uncertainty, decision making, distress, behavioral assessment, the Beads Task



PEDAGOŠKA PSIHOLOGIJA

EDUCATIONAL PSYCHOLOGY

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Social-demographic predictors of parental practices that stimulate cognitive development in preschoolers

Parental practices that aim cognitive stimulation is a significant predictor of cognitive development in children. According to some research, cognitive stimulation may play a role as a mediator of the association between the socioeconomic status of parents and some children's characteristics, such as executive function or effortful control. This study aims to investigate the predictive power of some characteristics of maternal practices that stimulate the cognitive activities of their children.

Respondents to the exploration were 558 mothers of preschoolers in the age range of 23 to 50 ($M = 34.92$, $SD = 5.06$), of whom 82% are married. Age of children: from 4.6 to 8.22 years ($M = 6.76$, $SD = 0.40$), 48% male, 52% female. Participants were asked about their age, education, income, and number of children that they have. Mothers answered questions about their usual engagement in cognitive stimulation activities such as practicing writing, helping child to do art, and others.

Regression analysis showed that predictors of telling stories ($F(4, 552) = 9.75$, $p < 0.001$, $R^2 = 0.07$) are mother's education level ($\beta = 0.10$, $p < 0.05$), income ($\beta = 0.15$, $p < 0.001$), and number of kids ($\beta = -0.14$, $p < 0.01$). The predictor of playing games ($F(4, 552) = 2.63$, $p < 0.05$, $R^2 = 0.02$, $\beta = -0.12$, $p < 0.01$) and building things ($F(4, 552) = 2.43$, $p < 0.05$, $R^2 = 0.02$, $\beta = -0.12$, $p < 0.01$) is only mother's education level. The only predictor of doing sport ($F(4, 552) = 2.61$, $p < 0.05$, $R^2 = 0.02$) is income level ($\beta = 0.09$, $p < 0.05$). Predictors of reading books to a child ($F(4, 552) = 5.41$, $p < 0.001$, $R^2 = 0.04$) are income level ($\beta = 0.08$, $p < 0.05$) and number of kids ($\beta = -0.19$, $p < 0.001$). A predictor of practicing reading ($F(4, 552) = 4.47$, $p < 0.001$, $R^2 = 0.03$, $\beta = -0.18$, $p < 0.01$), and writing ($F(4, 552) = 2.39$, $p < 0.05$, $R^2 = 0.02$, $\beta = -0.10$, $p < 0.05$) is the number of children.

This study's results support information about the relationship between parental social-demographic characteristics and their participation in the cognitive stimulation of



children's development. Also, it should be noted that the type of cognitive stimulation that mothers prefer might depend on their education, income level, and number of children that they have. Probably, mothers with higher education and a high income tell stories, read books to their children, and play sports because they recognize the importance of cognitive skills and health for their children's future and work to improve them. Mothers with large families may lack time for the cognitive stimulation of preschoolers, particularly for the development of their active and passive language skills. Future study on this topic needs to pay more attention to these issues since they pose potential threats to preschoolers' cognitive development.

Keywords: Parental practices, cognitive stimulation, social-demographic characteristics, mothers

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Imagination and executive functions in 5-6-years-old children

The most important aspects of cognitive development in preschool age are imagination and arbitrariness, which are significant for the children's further successful development and education (Vygotsky, 1982; Alfonso-Benlliure et al., 2013; Calvert, 2015; Chen et al., 2020). At preschool age both cognitive abilities actively develop within the role play (Vygotsky, 1982). However in the modern world traditional play with peers among preschoolers is supplanted and supplemented by the active use of gadgets (Calvert, 2015; Götz, 2015; Singer, Singer, 2005), that raises questions about the features of imagination and executive functions development in modern preschoolers.

The research purpose was to study the relationship between the main components of executive functions and the characteristics of productive imagination in 5-6 years-old preschoolers.

To assess the preschoolers' imagination the "Complete the Drawing" test (Dyachenko, 1996) was used, which is a modified version of the test by E. Torrance (Torrance, 1962). Such parameters of children pictures as flexibility, originality, elaboration, coefficient of originality were assessed. A survey of kindergarten teachers was conducted to study various aspects (verbal, productive, behavioral) of preschooler's imagination. The study used the DCCS method (Zelazo, 1996) and NEPSY-II subtests (Korkman, Kirk, Kemp, 2007) - «Inhibition», «Memory for Designs», «Sentences Repetition», «Statue» - for executive functions components assessment.



The study involved 319 children (of which 49.5% were boys) aged 59 to 72 months ($M=65.0$, $SD=4.27$) from senior kindergarten groups from four regions of Russia.

It was found that verbal working memory was significantly correlated (Spearman coefficient) with the originality of preschool children's drawings. Also, cognitive flexibility was significantly correlated with the coefficient of originality in preschoolers. Much more significant correlations were found between the executive functions and the results of a teachers survey: the cognitive flexibility was significantly associated with the verbal and productive scales of the questionnaire, and the behavioral scale - with the inhibition. Verbal working memory was significantly associated with the verbal scale, and visual - with productive. The obtained data suggest that executive functions actively help the imagination, however, the statistical methods used do not allow us to speak about direction of relationship.

Thus, the study contributes to the understanding of how executive functions and imagination develop in today's preschoolers and how they are related. The identified relationships show the possibility of improvement of one cognitive function through other in work with preschoolers.

Keywords: imagination, executive functions, preschoolers, inhibition, cognitive flexibility

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Student engagement and prosocial behavior in high school students

School or student engagement is widely recognized as a multidimensional construct that encompasses three aspects of engagement – cognitive, behavioral, and emotional. Previous research has linked student engagement to various positive developmental outcomes such as academic achievement, prosocial behavior, and sense of belonging to the school. Examining school engagement and its relationship with prosocial behavior is especially important in high school, when engagement is known to decline. Therefore, the aim of this study is to examine whether adolescents' school engagement is associated with prosocial behavior among high school students.

The research sample consisted of 766 students (61.1% female) from four high schools in Serbia, age from 15 to 19 ($M = 16.36$, $SD = 1.04$). School engagement was assessed by



Delaware Student Engagement Scale (four-point Likert-type scale, $\alpha = .90$). The results of the confirmatory factor analysis did not yield three separate factors, but instead showed that the items of the behavioral and cognitive engagement subscales were best represented by one factor. Thus, the scale consists of only two subscales: cognitive/behavioral engagement (8 items, $\alpha = .89$) and emotional engagement (4 items, $\alpha = .90$). Data on prosocial behavior were collected using the prosocial subscale of The Strengths and Difficulties Questionnaire (5 items, $\alpha = .84$).

The results show that school engagement is statistically significantly positively correlated with students' prosocial behavior. Students with higher scores on the engagement scale exhibit more prosocial behaviors ($r = .64, p = <.001$). In addition, a stronger relationship is found between students' cognitive-behavioral engagement and prosocial behaviors ($r = .65, p = <.001$), compared to emotional engagement ($r = .46, p = <.001$). The correlation remains significant even when age and gender of respondents are taken into account.

The results of this study suggest that school engagement can be a powerful resource for prevention practice and the promotion of prosocial behavior, and that it would be useful to plan interventions that promote active engagement of students in school.

Keywords: school engagement, student engagement, prosocial behavior, high school students



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The Impact of an Active Participation Contract on Alleviating Foreign Language Anxiety: A Study on University Students

Foreign language classroom anxiety (FLCA) is a well-documented phenomenon that can significantly impact language learning outcomes and students' overall language experience. Numerous studies have examined the factors contributing to FLCA and the potential interventions to lower its effects. Building upon the previous research regarding FLCA, which investigated the relationship between the contractual agreement to more active participation and FLCA among university students, this study aims to further explore this in the different cultural and national setting.

Our research focused on language anxiety in the context of formal education at the university level. We questioned whether anxiety emerging during learning foreign language can be reduced by any means. Specifically, we focused on the effects of method of contracting during learning, on reducing language anxiety. In order to examine this in more detail, we exposed students to different learning conditions and



followed how it will affect students during time. Understanding language anxiety and means of its reduction has important practical consequences, because it can facilitate and accelerate the process of learning foreign language.

The procedure for this research involved a sample of 66 university students ($M = 21.09$, $SD = 5.72$, 78.8% female), divided into two groups: a control group consisting of 33 students and an experimental group also comprising 33 students. The majority of participants had more than 10 years of experience in learning English. Prior to the commencement of the experiment, all students completed FLCA Scale (Šafranji et al., 2020) to assess their state levels of foreign language anxiety. This scale includes 33 items followed by a 5-point Likert scale. Subsequently, the experimental group entered into a contractual agreement with the teacher, committing themselves to active participation during English classes. After a period of one month, both groups underwent a post-test to evaluate any changes in foreign language anxiety, specifically examining if there was a decrease in anxiety levels for the experimental group.

A mixed ANOVA was performed to analyze the effect of contracting and time on language anxiety. Results showed that there was not a statistically significant interaction between the effects of contracting and time, $F(1,1) = .045$, $p = .832$. Although both groups significantly reduced the level of anxiety during time ($p = .004$), we did not find differences due to contracting condition ($p = .226$). The results may have opened the question of the applicability of the method of contracting in the learning context in our society. Also we assumed the importance of several personal and social characteristics in the domain of formal learning.

Keywords: language anxiety, foreign language, contracting, students



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How do epistemic curiosity and metacognitive abilities shape physics performance and general school performance?

Both curiosity and metacognition are considered one of the crucial aspects of student's school achievement and their motivation for learning. Many studies have explored these two concepts but very few have considered them simultaneously and by using student's self-report measures. Understanding factors that affect physics performance, as one of the most challenging school subjects, could enable teachers to establish better teaching conditions that would ultimately result in better student grades. Therefore, the purpose of this study was to explore the relationship between epistemic curiosity (specific and diversive) and metacognitive abilities (knowledge and regulation) on one



side and physics performance and general school performance on the other. Epistemic curiosity can be defined as a drive to know and it is triggered by puzzles and gaps in the knowledge (Berlyne, 1954). It can be specific - narrowly focused on a specific topic or diversive - directed towards a wide range of topics (Litman & Spielberger, 2003). As for metacognitive abilities, metacognitive knowledge refers to the knowledge about oneself as a learner, how to perform particular strategy and when a certain strategy should be applied (Schraw & Dennison, 1994). Metacognitive regulation includes elements that coordinate cognitive processes: planning, information management, monitoring, evaluation and debugging in the process of thinking and learning (Schraw & Dennison, 1994). Respondents of this study were 270 elementary school students from 7th and 8th grade (49.6% male) in Serbia. The administered questionnaire consisted of three parts: 1) Jr. MAI Version B (Sperling et al., 2002) that measures metacognitive awareness, 2) Epistemic curiosity scale (Litman & Spielberger, 2003), 3) Socio-demographic variables (gender, grade and parent's occupation). Multivariate general linear modeling showed that there is no significant effect of epistemic curiosity and its interaction with metacognition while metacognitive abilities are significantly related to physics and general school performance. Metacognitive knowledge is positively related to all measured student's performances, especially physics, while metacognitive regulation is negatively related to physics performance but there was no significant effect on general school performance. It seems that traditional way of teaching is more fitting for metacognitive knowledge while metacognitive regulation, in this context, could even be detrimental for physics learning. Since there were no significant effects of epistemic curiosity on physics performance and general school performance, the assumption is that this lack of its positive effect might be due to the neglect of curiosity development in schools. These results provide a novel insight which could be of benefit to both the scientific community and school practice.

Keywords: Metacognition, epistemic curiosity, physics teaching, school performance, elementary school



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Delamo zajedno, učimo zajedno: Primena Teorije delatnosti na proučavanje škole kao zajednice učenja

Kako bismo pristupili sistemskom sagledavanju kompleksne umreženosti aktera jedne školske zajednice usmerenih na postizanje obrazovnih ciljeva, oslanjamo se na koncept škole kao zajednice učenja (ZU). Integrativni model škole kao zajednice učenja (OECD,



2016) specifikuje 7 dimenzija koje konstituišu ZU: 1) postojanje ciljeva, misije i vizije škole, a koji su usmereni na učenje učenika; 2) postojanje jake podrške profesionalnom razvoju zaposlenih; 3) izražena kultura kolaboracije kojom se uvezuje delovanje različitih aktera; 4) postojanje klime koja podržava eksploraciju strategija rada i razmatranje inovativnih pristupa; 5) donošenje odluka koje počivaju na rezultatima stanja i/ili napretka; 6) povezanost ustanove sa njenim spoljašnjim okruženjem; 7) praktikovanje liderstva direktora škole koje je usmereno na učenje. OECD model predstavlja značajan napredak u sistematizaciji dimenzija ZU. Međutim, izostaje konceptualizacija njihove međupovezanosti, koja bi omogućila razumevanje dinamike, tj. funkcionisanja škola kao ZU i mapiranja dinamičkih aspekata sistema koji oblikuju dalju transformaciju škole u ZU. Kako bismo prevazišli identifikovani nedostatak, predlažemo proučavanje ZU, koncipirane preko OECD modela, kroz okvir kulturno-istorijske Teorije delatnosti (KITD) treće generacije (Sannino & Engestrom, 2018). Cilj ovog rada je predstavljanje konceptualne kompatibilnosti ovih pristupa, te komparativne prednosti proučavanja ZU kroz okvir KITD. Na osnovu konceptualne analize, identifikovana je epistemološka kompatibilnost dva pristupa, koju prepoznamo u tome što su oba: a) sistemski pristupi; b) stanovišta da su psihološki procesi i praksa posredovani simboličkim i materijalnim socio-kulturnim resursima; c) uverenja da je ZU sistem koji je fleksibilan, tj. prilagođava se spoljašnjim promenama; d) usmereni na unapređenje prakse. Komparativne prednosti proučavanja ZU kroz okvir KITD mapirane su u: a) naglašavanju značaja dijahrone dimenzije, tj. u praćenju istorijskih transformacija sistema, koje omogućava posmatranje toga kako se objekat sistema (školska misija i vizija) reprodukuje, uz reprodukciju praksi koje ga podržavaju; b) jačem naglasku na istraživanju toga kako materijalni resursi oblikuju školsku praksu; c) usmerenju na inherentne kontradikcije sistema, koje omogućavaju mapiranje mesta njegove ranjivosti, ali i mogućeg rasta; d) većoj kulturnoj osetljivosti - tezi da ono što predstavlja dobru praksu u različitim ZU zavisi od specifičnog sociokulturnog konteksta. Zahvaljujući jasnijoj konceptualizaciji elemenata sistema (objekat, subjekti, alati, zajednica, pravila, podela rada) i njihovih međusobnih interakcija, a time i osetljivosti za različite aspekte koji posreduju razvoj ZU, KITD predstavlja dobro polazište za buduće empirijske studije usmerene na razvoj škola kao ZU. Posebnu vrednost ovakvog pristupa vidimo u mogućnosti identifikovanja načina na koje se dobre prakse reprodukuju i dalje transformišu u školi kao ZU.

Ključne reči: zajednica učenja; Teorija delatnosti; obrazovni kontekst; unapređivanje obrazovnog procesa

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We act together, we learn together: Activity theory as a framework for exploring school as learning community

In order to systematically study the complex network of school actors who work together in achieving educational goals, we rely on the concept of school as a learning



community (LC). The Integrative model of the school as a learning organization (OECD, 2016) specifies 7 dimensions that constitute the LC: 1) establishment of school mission and vision aimed at student learning; 2) devotion to the professional development of the staff; 3) culture of collaboration that binds the actions of different actors; 4) culture that supports the exploration and innovative approaches; 5) data-based decision making; 6) collaboration of the school and the external environment; 7) school principal leadership focused on learning. OECD model represents a significant improvement in the systematization of the dimensions of LC. However, it lacks conceptualization of their interconnectedness, which would advance our understanding of the dynamic aspects of the schools as LSs and, hence, dynamic factors that affect further transformation of the schools into LC. In order to overcome this shortcoming, we suggest studying the LCs, defined in the OECD model, through the lens of cultural-historical Activity theory (CHAT) of the third generation (Sannino & Engestrom, 2018). The aim of this paper is to present a conceptual overview of the compatibility of these frameworks, and comparative advantages of studying the LC through the lens of CHAT. Conceptual analysis revealed the epistemological compatibility of the two approaches, in sense that both: a) are systemic approaches; b) view psychological processes and practice as mediated by symbolic and material socio-cultural resources; c) define LC as a flexible system, i.e. adaptable to external changes; d) aim at improving practice. The comparative advantages of studying LC through the lens of CHAT are recognized in: a) emphasizing the importance of the diachronic dimension - mapping the historical transformations of the system, which shows how the object (school mission and vision) is reproduced, along with the reproduction of the practices that underpin it; b) stronger emphasis on studying how material resources shape professional practices; c) focusing on the inherent contradictions of the system, which aid in mapping places of its vulnerability, but also of possible growth; d) greater cultural sensitivity - what counts as a good practice in a particular school depends on its specific sociocultural context. As a result of a clearer conceptualization of the elements of the system (object, subjects, tools, community, rules, division of labor) and their mutual interactions, and, thus, sensitivity to the various aspects that mediate the development of the LC, CHAT represents a good starting point for future empirical studies of schools as LCs. The distinctive value of this approach, as we see it, is the possibility of identifying the ways in which good school practices are reproduced and further transformed within a school as LC.

Keywords: learning community; Activity theory; educational context; improving educational practice

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PERCEPCIJA I EGZEKUTIVNE FUNKCIJE PERCEPTION & EXECUTIVE FUNCTIONS

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Conceptual Mapping Between Brightness Contrast and Mental Arithmetic

Recent studies have shown that perceptual representations influence mental arithmetic. We ran three experiments designed to test the hypothesis that mental arithmetic is associated with brightness perception through the interaction of conceptual or metaphorical mapping and polarity correspondence. In each experiment, a different group of thirty undergraduate psychology students verified whether the left side was equal or unequal to the right side of single-digit addition or subtraction problems. Experiment 1 was a direct replication of the study by Šetić Beg et al. (2021). The arithmetic problems appeared in either white (positive contrast polarity) or black (negative contrast polarity) on a gray background. As in the original study, mean correct reaction times were submitted to $2 \times 2 \times 2$ ANOVA with contrast polarity (positive vs. negative), arithmetic operation (addition vs. subtraction), and response codes (yes vs. no) as repeated-measures factors. ANOVA revealed a statistically significant three-way interaction between contrast polarity, arithmetic operation, and response codes, $F(1, 29) = 26.75$, $p < .001$, partial $\eta^2 = .48$, indicating that participants spontaneously associate positive contrast polarity with addition and negative contrast polarity with subtraction. Experiments 2 and 3 extend this result by showing that, when contrast polarity was kept constant, contrast magnitude is also involved in the conceptual mapping between mental arithmetic and brightness perception. In Experiment 2, the arithmetic problems appeared in white or mid-gray on a black background. $2 \times 2 \times 2$ ANOVA on reaction times revealed a statistically significant three-way interaction between contrast magnitude (high vs. low), mental arithmetic (addition vs. subtraction), and response codes (yes vs. no), $F(1, 29) = 7.76$, $p = .009$, partial $\eta^2 = .21$. Thus, in the absence of opposition between positive and negative contrast polarity, the opposition between high and low contrast is also associated with mental arithmetic. Specifically, high contrast is associated with addition, whereas low contrast is



associated with subtraction, consistent with the categorically coded magnitude relation of more vs. less. In Experiment 3, the arithmetic problems appeared in black or light gray on a white background. As in Experiment 2, the $2 \times 2 \times 2$ ANOVA on reaction times again revealed a three-way interaction between contrast magnitude (high vs. low), mental arithmetic (addition vs. subtraction), and response codes (yes vs. no), $F(1, 29) = 13.06$, $p = .001$, partial $\eta^2 = .31$. Taken together, the results show that participants conceptually mapped the abstract relationship between addition and subtraction (more vs. less) to a similar relationship between contrast polarities (positive vs. negative), and contrast magnitudes (high vs. low contrast).

Keywords: Abstract Concepts, Brightness Perception, Mental Arithmetic, Metaphorical Mapping

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Lightness of objects with different material characteristics

Different objects contain different material properties, which consequently have a significant impact on the way they reflect light. Objects made of smooth materials (such as marble) appear to shine, as they have specular highlight on some part of their surface. In contrast, objects made of matte materials (such as paper) reflect light diffusely, and do not contain specular highlight. Previous study (Toscani et al., 2017) showed that glossy computer-generated three-dimensional (3D) objects are perceived as significantly darker than the matte objects of the same average brightness. It was suggested that specular highlights are uninformative when estimating lightness, and visual system simply "discards" them, rendering glossy objects darker in appearance. The aim of this research was to examine the described effect of material properties on lightness of real 3D objects.

Two experiments ($N_1 = 22$, $N_2 = 21$) were conducted in a dark experimental chamber, with individually presented stimuli in the random order. We used 18 stimuli, varying their material properties, luminance and shape. The material properties had two levels: matte (made of Munsell paper) and glossy (made of smooth paper); reflectance had three levels (4.6; 19.7 and 50.6 %); and shape had three levels (cube, cylinder and pyramid). In the first experiment the stimuli were static, while in the second experiment the stimuli



were rotated around their horizontal axis, causing the specular highlights to change position on the surface, revealing object's true reflectance. Participant's task was to match the lightness of presented objects using standardized Munsell scale. The second experiment was designed to directly test Toscani's explanation, as our hypothesis was that the horizontal rotation of glossy objects will eliminate the material characteristics effect.

There was a standard reflectance effect ($F(2,82) = 1121.283, p < 0.001, \eta^2 = .974$): objects with higher reflectance were perceived higher in lightness than objects with lower reflectance. The previously reported effect of material characteristics was now confirmed on real 3D objects ($F(1,41) = 112.314, p < 0.001, \eta^2 = .733$): stimuli made of glossy paper were perceived as lower in lightness than the matte objects of identical reflectance. However, the rotation of the objects did not lead to the expected loss of the material effect as there was no interaction between the material and experiment ($F(1,41) = 1.032, p = 0.131, \eta^2 = .055$). The only difference was that the rotation of the objects caused them to be perceived as higher in lightness than static ($F(1,41) = 7.803, p = 0.008, \eta^2 = .160$).

Keywords: Lightness; Material characteristics; Gloss; Specular Highlight



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Perceived distance anisotropy – matching versus estimating distances

Upward distances are perceived as larger than physically equal downward or distances in front of us. This anisotropy of perceived distance is considered as a kind of a model of perceived space and it is related to perception-action interactions since distances are perceived as larger in direction requiring more effort for action performance. On the other hand, the effect of perceived distance anisotropy is shown only in the matching task, during which participants are asked to equalize distances of stimuli in horizontal and vertical directions. If perceived distance anisotropy represents a model of perceived space, it should appear regardless of the task type. According to that, the aim of the present research was to investigate perceived distance anisotropy in a different type of task, such as direct distance estimation. Two experiments were performed in a reduced cue situation, the first one in a virtual reality setting (VR), and the second in a dark room (physical reality, PhR). The task for 43 participants (20+23) was to estimate distances of dim light stimuli in two directions, vertical above them and horizontal in front of them. In the VR experiment, we investigated far space and used five standard stimuli distances, 1m, 2m, 3m, 4m, and 5m. In PhR we also used five standard stimuli distances,



but in near space, 0.4m, 0.6m, 0.8m, 1m, and 1.2m. Participants were asked to set the stimuli at a certain standard distance in both directions (vertical and horizontal) and moved it by keyboard arrows (VR) or by guiding the experimenter to move it (further or closer) until they are satisfied with the reached distance (PhR). In VR results did not show significant effects of direction, meaning that anisotropy of perceived distance did not appear. However, PhR results did show a significant effect of direction ($F(1, 22)=13.182, p=.001, \eta^2=.375$), which was independent of the stimuli distance. As in all previous research, vertical upward distances were perceived as larger than physically equal horizontal distances. We can conclude that perceived distance anisotropy appears in estimation tas, but only in physical reality in near space. Lack of anisotropy in virtual reality can be attributed to certain limitations of VR equipment, such as general distance compression, or to anisotropy task dependence in far space, above 1m.

Keywords: perceived distance anisotropy, effort, virtual reality, matching task, estimation task



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The experimental assessment of Prospect Theory's explanatory concepts: The loss and gain zones in risky choice framing

According to prospect theory, the framing effect represents a change in the preference order in risky choice decision making based on whether outcomes are presented as gains or losses, because the reference point of the decision maker (DM) is moved to the so-called "gain and loss zones." DMs change their estimates of probability and value of potential outcomes differently based on whether they're in the gain or loss zone, and make different choices accordingly. However, prospect theory doesn't define these zones in a measurable manner, nor incorporate any mention of the contribution of emotional states to this deviation from normative rationality. In the model of risk as feelings, the crux of our decisions is the interplay between anticipatory and anticipative emotions – i.e., how the decision maker feels leading up to their choice, and how they expect to feel upon learning its outcome.

This research's goal was to formulate an operationalization of the loss and gain zones in risky choice framing by merging explanatory concepts from prospect theory and the model of risk as feelings.

The zones represented different combinations of subjective value and probability of choice outcomes, choices between the risky and safe options (prospect theory), anticipatory, and anticipative emotions (risk as feelings).



The zones were induced through 14 formally equivalent risky choice tasks: each participant completed 7 tasks presented as loss opportunities and 7 as gain opportunities (counterbalanced).

The basic framing effect was confirmed ($F(1, 93) = 26.5, p < .001, \eta^2 = .222$). There was no significant difference between subjective probability estimates for different risk outcomes ($F_s(1, 93) = 1.17$ and 2.26 , all $p_s > .05, \eta^2_s = .012$ and $.024$), counter to expectations. The estimates of subjective value for different outcomes interacted with the frame ($F(1.38, 128.41) = 18.94, p < .001, \eta^2 = .169$). All main effects for subjective value estimates between frames were significant ($F_s(1, 93) = 7.71$ – 38.8 , all $p_s < .01, \eta^2_s = .076$ – $.294$), as expected. The self-report measures of emotional states (anticipatory vs. anticipative) interacted with the frame ($F(1, 93) = 4.37, p = .039, \eta^2 = .045$). Main effects for both emotional states between frames were significant ($F_s(1, 93) = 50.8$ and 68.8 , all $p_s < .001, \eta^2_s = .353$ and $.425$), as expected.

The results support the novel operationalization of the gain and loss zones in risky choice framing. However, subjective probability didn't register as expected, one explanation being that the scale used was ill-suited, as it required precise probability measuring on a percentage scale after a very vague description of the probabilities in the task - future research could amend this. On the other hand, emotions measured proved valuable both for "proof-of-concept," and interpreting findings on subjective value, where both emotional states could explain the direction value estimates moved in the negative frame, causing interaction.

Keywords: prospect theory, risky choice framing, gain and loss zones, risk as feelings, anticipative and anticipatory emotions



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Investigating the Effects of Cognitive Training on Executive Functions and Neurophysiological Changes in Middle-Aged Adults

Age-related cognitive decline poses significant challenges in performing many daily cognitively demanding tasks, and cognitive training has emerged as a potential intervention to mitigate this decline. However, the extent to which cognitive training extends its benefits to untrained cognitive domains remains uncertain. Understanding the neuroplastic capacity during late middle adulthood when cognitive abilities are still modifiable is very important for designing effective cognitive interventions. This study aimed to investigate the effects of cognitive training on executive functions and associated neurophysiological changes in middle-aged adults. Fifteen participants in the



middle-aged group were randomly assigned to either an updating or an inhibition training group. The training program comprised 20 sessions, and qEEG parameters were measured during four training sessions (1st, 7th, 14th, and 20th) to capture potential neurophysiological changes. Preliminary findings indicate that both updating and inhibition training resulted in improvements solely in the trained tasks, indicating training-induced task-specific cognitive enhancements. However, no significant changes in frontoparietal coherence, a measure of neural connectivity, were observed between the first and last sessions. Specifically, coherence between selected electrode pairs (F3-P3, F4-P4, Fz-Pz, F3-P4, and F4-P3) was computed, and five separate 2x2 ANOVAs for mixed designs show no significant main effects of group, measurement point, or interaction (all F-values were lower than $F(1,11) = 3.1$; $p > .05$). This implies that the observed task-specific improvements may not be accompanied by significant alterations in neural connectivity. This implies that the observed task-specific improvements may not be accompanied by significant alterations in neural connectivity. Alternatively, future studies should explore whether some individual differences in baseline EEG parameters could predict training gains.

Keywords: Keywords: cognitive training, executive functions, middle-aged adulthood, qEEG

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Attentional capture by salient distractor depends on search task type

A decades long debate on bottom-up versus top-down factors of attentional guidance still remains open. While bottom-up theories of visual attention postulate that attention is automatically captured by salient stimuli, top-down theories emphasize that attentional control is in line with current task goals and that it can override irrelevant salient signals. Aim of this research was to examine bottom-up and top-down attentional guidance in two different task types that were often used in previous research: search task in which the target is defined as a shape singleton (Experiment 1)



and search task in which the target is defined as a one specific shape (Experiment 2). In both experiments, capture-probe paradigm was used to examine attentional capture by distractor, present in 50% of trials, and salient in irrelevant dimension (color).

In Experiment 1, 24 participants searched for a unique shape (square, rectangle, pentagon, hexagon or diamond) among four circle-shaped distractors. The reaction times were slower in distractor present than in distractor absent trials $t(23) = 6.75$, $p < .001$, $d = 1.55$, and there were more reported probe letters in location of salient distractor compared to average nonsalient distractor location $t(23) = 5.01$, $p < .001$, $d = 2.06$. In Experiment 2, search set always consisted of five different shapes (square, rectangle, pentagon, hexagon and diamond) and participants searched for one predefined shape shown at the beginning of the experiment. The results showed no effect of distractor presence on reaction times and there was no difference in percentage of reported letters in salient distractor location versus average nonsalient distractor location.

This research indicates that bottom-up versus top-down influence on visual attention depend on task type. In task with singleton target, participants adopt singleton detection strategy and tend to direct attention in bottom-up fashion, which results in attentional capture by all salient stimuli, even if they are irrelevant. In task with predefined target feature value, attention is probably guided by the top-down target template, which allows for adopting feature search strategy and inhibiting salient irrelevant signals. We conclude that the part of explanation for inconsistent results in previous literature is the use of different search task types.

Keywords: distractor inhibition, search mode, feature search, singleton search



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Perception of vowels with flattened formant peaks in a language with a smaller vowel space

According to formant-based models of vowel perception, the first two or three formant frequencies are the primary, if not the sole cues required for vowel identification. However, in a study conducted by Ito et al. [*J. Acoust. Soc. Am.*, 110, 1141–1149], four Japanese listeners did not appear to substantially alter their vowel identification when either the first (F₁) or the second formant (F₂) of synthesized vowels was flattened. Although this would argue in favor of whole-spectrum approaches to vowel perception, Ito et al. based their conclusions on visual inspection of listener responses plotted in an F₁ by F₂ formant space. In a series of similar experiments with 13 to 15 English listeners conducted by Nenadić et al. [*J. Acoust. Soc. Am.*, 148, 1911–1921], quantitative analyses clearly showed significantly higher response entropy—i.e., disagreement in which vowels are heard—when the listeners identified the manipulated vowels with flattened formant peaks in comparison to the original synthesized vowels. The vowel space of the Japanese language is much smaller than the vowel space of the English language, so the observed differences in these participant responses, when compared to those in Japanese, could be a consequence of the larger number of categories English listeners have to contend with. Therefore, we replicated the study in Serbian, which has a smaller vowel space very similar to that of Japanese (especially if vowel stress and length are ignored). Ten native listeners of Serbian from the Vojvodina-Šumadija dialect identified synthesized vowels and subsequently their manipulated versions in which F₁ or F₂ was flattened. Visual inspection of vowel space appeared to corroborate the claim that the responses do not appear to change appreciably after formant manipulation. However, quantitative analyses again showed that entropy values increase when either of the two formant peaks is suppressed [$F(2, 190) = 16.95, p < 0.001$], as confirmed by pairwise



comparisons with Bonferroni correction. We affirm the conclusion made by Nenadić et al. that formant peaks are not the sole cues used in vowel identification, but that they remain very important and that tampering with formant values increases response uncertainty and may lead to changes in vowel identification. The present study shows that this is the case even in a language with much less crowded vowel space. Importantly, our analyses also revealed listener individual differences in the degree in which they alter their responses to synthesized vowels after formant peak suppression. We discuss the need for a larger-scale study that would explore the extent of these individual differences which we currently attribute to differing listener strategies.

Keywords: formant, vowel perception, Serbian language



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Do dominance effects for polysemous words depend on sense probabilities?

Polysemous words have multiple related senses and represent one of the most widespread phenomena in language (Rodd et al., 2004). When presented in isolation in a word recognition task (e.g. visual lexical decision task), such words are typically processed faster than unambiguous words due to sense relatedness facilitating the activation of all senses. However, when presenting a word in a task that demands activation of one particular sense, or within a context that primes one of the senses, the processing becomes slower (Armstrong & Plaut, 2016), as a restriction to one sense occurs, leading to competition between senses. This increase in processing time depends on sense probability (dominance effect). Priming the most probable (dominant) sense leads to a smaller processing lag, compared to priming the less probable (subordinate) sense. We hypothesise that this effect will not depend solely on the dominance status of the primed sense but on the full sense probability distribution described by entropy (Filipović Đurđević & Kostić, 2021). If a polysemous word is presented within a neutral context, we expect a facilitatory entropy effect as if it were presented in isolation. Priming the dominant sense was expected to annul the entropy



effect, as low competition occurs. Priming the subordinate sense was expected to lead to an inversion of the entropy effect.

To test the cross between dominance and entropy effects we presented each of the 102 Serbian polysemous nouns in three sentences. One where the context was neutral regarding any of the senses, one sentence priming the dominant sense, and one sentence priming one of the subordinate senses. These 306 sentences were split into three lists using a Latin square design, such that each participant saw all 102 words, but the exact condition varied between participants. In addition, we included 60 filler sentences, with comprehension questions to keep participants' attention on reading. Sentences were presented in the moving window self-paced reading task to 196 participants. Mixed-effect regression revealed that priming dominant senses led to slower processing compared to neutral ($\beta = -.07$, S.E. = .02, $df = .03$, $t = -2.64$, $p = .008$, baseline: dominant priming condition). No significant differences were found between the dominant and subordinate priming conditions ($\beta = .04$, S.E. = .02, $df = .03$, $t = -1.67$, $p = .095$), although the trend suggests our hypotheses regarding the dominance effect were correct. Neither the entropy effect nor the interaction between the dominance priming condition and entropy were significant.

Our results partially support our hypotheses. Priming a particular sense did lead to slower processing of polysemous words, but differences between probabilities of the primed senses did not clearly point to a larger slowing down of processing for subordinate senses. No entropy effects were significant, opening further questions on in-context processing of polysemous words.

Keywords: ambiguity, polysemy, priming, sentence processing, self-paced reading task

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Ljubav i agonija: Da li ih drugačije doživljamo kad smo pod uticajem različitih emocija?

U novije vreme pojavila su se istraživanja u kojima se ispituje promena odnosa emocionalne valence (EV) i pobudljivosti (P) reči pod dejstvom različitih kontekstualnih



činilaca. EV predstavlja doživljaj prijatnosti/neprijatnosti određenog stimulusa, dok P predstavlja procenu koliko nas stimulus uzbuđuje/smiruje. Njihov odnos se opisuje pomoću kvadratne "U" krive, ukazujući na to da nas više pobuđuju oni stimulusi koje procenjujemo kao prijatne ili neprijatne. Istraživanja pokazuju da se u situacijama neprijatnosti gubi simetričnost "U" krive, te ljudi postaju osetljiviji na negativne stimuluse, dok se P za pozitivne stimuluse smanjuje. U studiji na srpskom jeziku (Popović Stijačić et al., 2023) je pokazano da je odnos EV i P postao linearniji tokom pandemije korona virusa, odnosno linearan u postkovid periodu. Ovim istraživanjem želeli smo da proverimo da li se odnos EV i P promenio, ali i da ispitamo koji aspekti emocionalnog stanja ispitanika utiču na procene EV i P.

Ukupno 178 (ž=88.2%, uzrast M=24.3) studenata psihologije je procenjivalo EV i P za 450 imenica srpskog jezika (150 po ispitaniku), koristeći sedmostepenu Likertovu skalu. Emocionalna stanja ispitanika smo merili na tri nivoa: opšte raspoloženje (nivo stresa, depresivnosti i anksioznosti) u poslednjih 7 dana (skala DASS-21), zabrinutost usled značajnih događaja (COVID-19, rat u Ukrajini, ispitni rok) i trenutno raspoloženje tokom procena EV i P smo beležili pomoću upitnika diskretnih emocija.

Korelacije sa procenama iz prethodne studije na srpskom jeziku (Popović Stijačić et al., 2023) su pokazale da su EV i P stabilne mere: $r_{EV(448)}=0.921$, $p<0.01$, $r_{P(448)}=0.96$, $p<0.01$. Potvrdili smo porast linearnog odnosa između EV i P: $r(448)=-0.819$, $p<0.01$ u odnosu na prethodno merenje-odnosno, pobudljivost za prijatne reči se dodatno smanjila. Daljim analizama zabeleženo je da su ispitanici koji su imali povišene skorove na skali DASS-21 davali manje ocene na EV. Takođe, ispitanici koji su i dalje uznemireni zbog korona virusa davali su niže procene za EV, pri čemu nivo depresivnosti, anksioznosti i stresa ispitanika nije bio povezan sa uznemirenošću zbog trenutnih dešavanja. Proverom uticaja trenutnih emocija na procene EV i P, pokazano je da su bes, ljutnja, užas i usamljenost uticale na to da ispitanici daju više procene na dimenziji P, dok su negativne emocije panika, nervoza, strah, ljutnja i užas uticale na davanje nižih ocena EV. Pozitivne emocije izuzetnost, relaksiranost i svidanje su uticale na davanje viših ocena EV, dok efekti na P nisu uočeni.

Naše istraživanje ukazuje na održavanje linearnog odnosa EV i P, uz dodatno smanjenje pobudljivosti za pozitivne reči. Mereći emocionalna stanja ispitanika, pokazali smo da raspoloženje (DASS-21), kao i kontekstualni činioci (uznemirenost zbog određenih događaja) utiču na EV reči, dok su na procene P uticali trenutni emocionalni doživljaji ispitanika (bes, usamljenost, užas, ljutnja).

Ključne reči: pobudljivost, emocionalna valenca, emocionalna stanja, reči

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Love and agony: Do we experience them differently under the influence of different emotions?

Recently, researchers have examined the change in the relationship between emotional valence (EV) and arousal (A) of words under the influence of different contextual factors. EV represents the experience of pleasantness/unpleasantness of a stimulus, while A represents the assessment of how stimulating/calming the stimulus is. The relationship is described using a quadratic "U" curve, indicating that stimuli perceived as pleasant or unpleasant are more arousing. Unpleasant situations disrupt the symmetry of the "U" curve, making people more sensitive to negative stimuli, while A decreases for positive stimuli. A study in Serbian (Popović Stijačić et al., 2023) explored the increasingly linear relationship between EV and A during the COVID-19 pandemic, particularly in the post-COVID period. The study aimed to verify changes in the EV-A relationship and examine how participants' emotional state influenced their evaluations. The total of 178 psychology students (female=88.2%, M=24.3) evaluated EV and A for 450 Serbian nouns (150 per participant) using a seven-point Likert scale. Participants' emotional states were measured at three levels: general mood (stress levels, depression, anxiety) over the past 7 days (DASS-21 scale), along with concern for significant events (COVID-19, the war in Ukraine, student finals), and also current mood during the evaluation of EV and A using a discrete emotions questionnaire.

Correlations with evaluations from a previous study in the Serbian language (Popović Stijačić et al., 2023) showed that EV and A are stable measures: $r_{EV(448)}=0.921$, $p<0.01$, $r_{A(448)}=0.96$, $p<0.01$. We confirmed an increase in the linear relationship between EV and A: $r(448)=-0.819$, $p<0.01$, compared to the previous measurement, indicating further decrease in arousal for pleasant words. Further analyses revealed that participants with higher scores on the DASS-21 scale gave lower ratings for EV. Additionally, participants who were still distressed due to COVID-19 gave lower evaluations for EV, while the levels of depression, anxiety, and stress were not associated with distress about current events. Examining the influence of current emotions on EV and A ratings, it was shown that rage, anger, horror, and loneliness influenced participants to give higher ratings on the A dimension, while negative emotions such as panic, nervousness, fear, anger, and horror influenced lower ratings for EV. Positive emotions such as excitement, relaxation, and liking influenced higher ratings for EV, while no effects on A were observed.

Our research indicates the preservation of a linear relationship between EV and A, with additional reduction in arousal for positive words. By measuring participants' emotional states, we have shown that mood (DASS-21) as well as contextual factors (distress about specific events) influence the EV of words, while evaluations of A were influenced by participants' current emotional experiences (anger, loneliness, horror, and anger).

Keywords: arousal, emotional valence, emotional states, words

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Sensorimotor ambiguity does not affect reaction latencies in visual lexical decision task

Ambiguous words vary on a continuum between words with multiple very similar senses (metonymy; e.g. chicken – animal or meat of that animal) and multiple unrelated and dissimilar meanings (homonymy; e.g. bank – institution or beach). The semantic similarity effect of of senses/meanings was shown to be facilitatory in visual lexical decision task (VLDT; Yurchenko et al., 2020), which is best explained by the distributed processing models where a word representation is seen as distributed in the pattern of activation of basic units representing its different features. The more similar word senses are, the more basic units they share, leading to faster activation and recognition in VLDT (Rodd, 2020). Parallel to this is the view of embodied cognition models that see prior sensorimotor (SM) experience with an object as the basis of a word representation (Barsalou, 1999). However, these models do not account for the fact that different word meanings/word senses can have different SM representations (e.g. chicken as an animal can be heard, while meat can not). We will name this phenomenon sensorimotor ambiguity. Different senses/meanings can be more or less similar in sensorimotor aspect. Sensorimotor (SM) similarity of different word senses/meanings is in positive relationship with semantic similarity (Anđelić & Filipović Đurđević, 2023), which suggests that SM information reflects semantic information. Our goal was to examine if SM similarity is an important factor for online word processing by examining its effect on reaction latencies. Analogous to semantic similarity, we expected it to be facilitatory. Participants (N = 103) took part in a VLDT with ambiguous nouns (N = 95). To ensure variability in predictor variable, we included both homonyms and polysemous nouns (metaphorical and metonymical). SM similarity ratings were calculated as average SM similarity between all sense/meaning pairs of one word (Anđelić & Filipović Đurđević, 2023). Pearson correlation between SM similarity and reaction times in VLDT was not significant, opposite to our hypothesis. Although these results suggest that SM information does not play an important role in activation of the word meaning, this is in conflict to embodied cognition models that suggest simulation of previous SM experience occurs during word recognition. On the other hand, it is possible that the SM effect is too small in magnitude to be recorded in this task, since SM information is postulated as only a subset of basic units whose activation patterns carry information about a word's meaning.



Keywords: lexical ambiguity; embodied cognition; semantic similarity; sensorimotor norms; sensorimotor similarity



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Effects of acoustic contextual information on spontaneous speech perception

The facilitatory effects of contextual information in speech perception are well-documented. Besides information pertaining to meaning, listeners may also use the acoustic characteristics of the surrounding speech to better understand a particular portion of the speech signal. Context becomes especially important when perceiving reduced speech, i.e., shortened, altered, or elided forms common in conversational speech.

We investigated how spontaneous speech perception is affected when the context is modified to exclude meaning and retain only certain elements of its acoustic characteristics. We used 79 short portions of a conversation produced by a young female speaker of Western Canadian English talking over the phone to her mother. Each recording had a target section containing one or more words, with context preceding and following. We modified the context to create three types of experimental stimuli: (1) “isolated” stimuli in which we removed the surrounding context; (2) “fo” stimuli in which we removed spectral information and kept the fundamental frequency of the signal and its short-term amplitude; and (3) signal-correlated noise (“SCN”) stimuli in which we flattened the spectral shape and removed the fo, retaining only the intensity contour of the signal over time.

The participants (27 females and 14 males; age $M = 21.02$, $SD = 5.06$) were presented with these sets of stimuli in one of four blocked orders. In two of the blocked orders the isolated stimuli were presented first and in the other two blocked orders they were presented last. The presentation order of fo and SCN blocks was counterbalanced. The participants were asked to type what they heard in the target section.

We automatically coded participant responses as correct or incorrect. A logistic mixed-effects regression showed that the participants were equally accurate in their first block (35-40%), regardless of stimuli type presented. The participants that listened to fo stimuli



in the first block did not improve when listening to SCN and isolated stimuli. The participants that listened to fo stimuli in the second block significantly improved their accuracy (to approx. 55%) and maintained it in the third block for either isolated or SCN stimuli. The listeners that responded to SCN stimuli in the second block did not improve their accuracy significantly (increased only to approx. 45%), but they significantly improved in the third block with fo stimuli (to approx. 48%) in comparison to the first block with isolated stimuli.

Although fo stimuli are not recognized better when heard for the first time, the listeners improve their accuracy and maintain it after being exposed to fo stimuli in a subsequent block. Certain acoustic characteristics of spontaneous speech context (especially the fo contour) can be used by listeners to inform decisions about the contents of reduced targets. The knowledge about such acoustic cues is likely shared between language users and shaped by experience.

Keywords: speech perception, reduction, acoustic cues, fundamental frequency, signal-correlated noise



POLITIČKA PSIHOLOGIJA

POLITICAL PSYCHOLOGY

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Navigating Normative Sources: How Adolescents Talk About Refugees from Ukraine and the Roma

Using discourse analysis, we sought to understand how Slovak adolescents discursively construct normative contexts of support for refugees from Ukraine as victims of direct violence, and for the Roma, the victims of structural violence. The concept of structural violence points to the systemic, political, and social factors that sustain inequality and social injustice. We examine whether and how social norms are reflected in their talk and how they justify their views in the microcontext of focus groups. We draw on studies on denial of prejudice that point to the presence of ideological climates where openly expressing racist sentiments is unacceptable. However, such norms are not immune to change, and discursive strategies can also be used for constructing admissions of racism. Our analysis of five focus groups with 22 Slovak adolescents conducted immediately after the outbreak of the war in Ukraine allowed us to examine how participants collectively negotiated situational norms related to prejudice expression. First, we show how adolescents collectively construct descriptive and injunctive norms in Slovak society regarding prejudice and intergroup behaviours. Second, we analyse how they manage norm incongruence in their immediate social environments as well as in broader societal context. Third, we describe how they construct intergroup relations in Slovakia following the outbreak of the war in Ukraine, navigating between various normative sources.

Even though participants considered racism as prevalent in Slovakia, some have pointed to the presence of norms condemning racist sentiments. Participants' use of various strategies of prejudice mitigation further suggests that they avoided being labelled as prejudiced. However, the perception that many people share the negative attitude seemed to encourage expressions of prejudice. The discourse depicting the Roma as receiving undeserved benefits extended to refugees as well, while comparison was made using the 'double discourse' by drawing a parallel between two burdensome yet undeserving groups. Structural violence of the Roma was only recognized when used as



justification for exclusion of other groups, while it is not normatively acceptable to question the help towards victims of direct violence, given that they meet the ‘criteria for deservingness’. The norm against prejudice does not necessarily apply to the Roma, while admissions of prejudice towards the Roma and ‘economic’ immigrants are deemed more acceptable, as peace as a universal good is not perceived as directly violated in such context. The study extends the previous body of research in discursive psychology that deconstructs those aspects of culture that contribute to the maintenance of direct and structural violence.

Keywords: social norms, discourse, anti-Gypsyism, refugees, Ukraine

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Short-term and long-term effects of imagined contact intervention on attitudes towards refugee children

The imagined contact hypothesis assumes that imagining a positive interaction with an outgroup member can change intergroup attitudes. School interventions based on imagined contact have great potential for improving attitudes towards refugees and could thus be used to prepare host-society children for future contact with their refugee peers. However, some studies suggest that imagined contact could be more effective when conducted with younger children, and the long-term effects of the intervention are not well studied.

Therefore, the aim of this study was to examine the short-term and long-term effects of an imagined contact school intervention on attitudes and contact intentions of host-society children from lower and upper grades towards refugees.

A total of 1544 children from seven Croatian primary schools not attended by refugee children at the time, participated in the study. They were divided into an intervention group (N = 827), which participated in four sessions of imagined contact activities, and a comparison group (N = 717). Children from the lower (second to fourth; N = 645) and upper grades (fifth to eighth; N = 899) took part in the study. The study was conducted at three measurement points: pre-test, post-test, and follow-up (on average, 87 days after the last session). At all time-points, children filled out measures of intergroup attitudes and contact intentions.



Multigroup latent change score analyses were used to compare the change in intergroup attitudes and contact intentions between the intervention and comparison groups, separately for children in lower and upper grades. In the lower grades, models allowing the groups to differ in change scores fit the data well for intergroup attitudes ($\chi^2(50) = 51.97, p = .397, CFI = 1.000, RMSEA = .000$) and for contact intentions ($\chi^2(50) = 70.66, p = .029, CFI = .994, RMSEA = .037$). Constraining the change scores to be equal across groups suggests that the change in intergroup attitudes is more positive in the intervention group, both when examining short-term ($\Delta\chi^2(1) = 10.52, p = .001$) and long-term effects ($\Delta\chi^2(1) = 5.61, p = .018$). The results are similar for contact intentions ($\Delta\chi^2(1) = 10.59, p = .001$ for short-term and $\Delta\chi^2(1) = 4.64, p = .031$ for long-term effects).

In the upper grades, the unconstrained models also had a good fit to the data for intergroup attitudes ($\chi^2(50) = 78.04, p = .007, CFI = 0.992, RMSEA = 0.039$) and contact intentions ($\chi^2(50) = 80.49, p = .004, CFI = 0.995, RMSEA = 0.040$). However, multigroup comparisons suggest there are no significant differences between the intervention and comparison groups for either of the measures, both in the short- and long-term.

Overall, this study suggests that imagined contact can improve children's attitudes and contact intentions towards refugees. However, its effects seem to be limited to children in the lower grades of primary school. Methodological improvements of the intervention for the upper grades will be discussed.

Keywords: imagined contact, refugee children, intergroup attitudes, contact intentions, school intervention

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The role of social responsibility in the relationship between social beliefs and collective action

The relationships between different social beliefs and collective action are frequently studied and found in previous research. However, many times these relationships are weak-to-medium in size. Hence, we propose to study also the personal sense of social responsibility when exploring collective action intentions. Based on previous, but sometimes quite multi-faceted apprehensions of social responsibility and similar concepts (e.g., philanthropy), we developed a short measure of the construct. The scale



development was aimed at capturing the personal preferences for, e.g., improving society, monitoring and shaping public affairs, and helping societal groups in need. In a data collection conducted on a Hungarian sample ($N = 870$, representative for age, gender, and type of residence) the newly developed measure of social responsibility was used and – among other things – different social and political views were also measured (i.e., support for economic inequality, rationalization of inequality, social dominance orientation, and system justification). Besides their social views, participants also reported their social status and the collective actions they performed during the last months. Collective actions were defined broadly in our study, ranging from charitable giving or volunteerism to signing petitions or protesting. Results showed a good internal consistency of the social responsibility scale developed for the study ($\alpha = .78$). The correlations of social responsibility scores and all the measures of social beliefs applied in the study (i.e., support for economic inequality, rationalization of inequality, social dominance orientation, and system justification) were significant and negative in their directions (correlation coefficients between $-.32$ and $-.49$, all $ps < .001$). In addition, social responsibility was positively associated with the reported level of collective actions ($r = .36$, $p < .001$). Analyses of mediation confirmed that the negative associations found between all the previously mentioned social views and collective action were fully mediated by social responsibility (significant indirect effect bs between -0.21 and -0.43). Moreover, in a second study ($N = 680$) we found that enhancing the accessibility of situational attributions for marginalization through a short writing task led to a higher level of social responsibility toward disadvantaged groups (e.g., the Roma and the poor), that in turn was positively associated with collective actions on behalf of those groups (significant indirect effect of situational attribution on collective action via social responsibility, $b = 0.13$, 95% CI [$0.03, 0.24$]). These studies suggest that social responsibility can be an important and boostable predictor of collective actions. Our recently developed scale seems to offer a new possibility in connecting social and political beliefs to social actions. Limitations as well as the application possibilities of the construct will be discussed.

Keywords: social responsibility, collective action, social inequality, social dominance orientation, system justification



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Crte ličnosti, vremenske perspektive i opažena kontrola kao prediktori građanskog aktivizma

Građanski aktivizam se odnosi na individualne i kolektivne akcije koje su osmišljene kako bi se identifikovali i rešili problemi od javnog interesa. On može poprimiti različite oblike,



uključujući volontiranje, članstvo u organizacijama i angažman na izborima, a takođe se proširio i na online područje. Vremenske perspektive se odnose na individualne orijentacije prema vremenu, uključujući orijentacije prema prošlosti, sadašnjosti i budućnosti, i mogu uticati na motivaciju i angažovanje pojedinaca u društvenim i političkim aktivnostima. Opažena kontrola se odnosi na verovanje pojedinca u sopstvenu sposobnost da utiče na i napravi razliku u svom okruženju. Glavni cilj ovog istraživanja je ispitati da li varijable iz domena osobina ličnosti, vremenske perspektive i opažena kontrola predstavljaju značajne prediktore online i offline građanskog aktivizma. Uzorak je obuhvatio 1183 građana Srbije. Nakon isključivanja učesnika koji nisu prošli proveru pažnje, veličina uzorka smanjena je na 1113 učesnika (65% ženskog pola) sa prosečnom starošću od 28 godina ($SD = 12.1$). Korišćeni su sledeći instrumenti: Osobine ličnosti prema HECAOX modelu merene su Mini IPIP-6 skalom (α vrednosti variraju od .67 do .75), Skala percepcije kontrole (α od .61 do .78), vremenske perspektive merene su ZTPI-short skalom (α vrednosti od .48 do .84), a onlajn i oflajn aktivizam mereni su upitnikom konstruisanim za potrebe ovog istraživanja: Skala građanskog aktivizma (online: $\alpha = .92$, offline: $\alpha = .90$, rezultati PCA podržali su konstruktivnu validnost upitnika). Podaci su prikupljeni putem Google Forms. Izvršene su linearne hijerarhijske regresione analize kako bi se ispitali prediktori onlajn i oflajn aktivizma. Kontrolne varijable (uzrast, pol, politička orijentacija) bile su uključene u prvi blok, zatim osobine ličnosti u drugi, vremenske perspektive u treći i opažena kontrola u četvrti blok. Kod onlajn aktivizma, značajni prediktori u finalnom modelu ($F(934, 4) = 5.22, p < .001; R = .310; R^2 = .10$) bili su ekstraverzija ($\beta = 0.14, p = .001$), savesnost ($\beta = -0.11, p = .002$), neuroticizam ($\beta = 0.09, p = 0.029$), otvorenost ka iskustvu ($\beta = 0.07, p = 0.039$), pozitivna budućnost ($\beta = 0.10, p = 0.006$), lična odgovornost za neželjene ishode ($\beta = 0.07, p = .033$) i opažena kontrola drugih nad željenim i neželjenim ishodima ($\beta = 0.07, p = .026$). Kada je reč o oflajn aktivizmu ($F(934, 4) = 4.68, p < .001, R = .295, R^2 = .087$), značajni prediktori u finalnom modelu bili su ekstraverzija ($\beta = 0.07, p = 0.49$), savesnost ($\beta = -0.17, p = 0.001$), iskrenost ($\beta = 0.07, p = 0.031$), pozitivna budućnost ($\beta = 0.12, p = 0.001$), lična odgovornost za neželjene ishode ($\beta = 0.07, p = 0.027$), percepcija kontrole drugih nad željenim i neželjenim ishodima ($\beta = 0.13, p = 0.001$). Iako su svi detektovani efekti mali, ekstraverzija, savesnost i pozitivna orijentacija ka budućnosti su se pokazali kao dosledni prediktori u oba oblika aktivizma.

Ključne reči: građanski aktivizam, crte ličnosti, vremenske perspektive, opažena kontrola

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Personality traits, time perspectives and perceived control as predictors of citizen activism

Citizen activism refers to individual and collective actions designed to identify and address issues of public concern. It takes various forms, including volunteering, organizational participation, and engagement in elections, and it has also expanded into the online realm. Time perspectives refer to individual orientations towards time, including past, present, and future orientations, and can influence individuals' motivation and engagement in social and political activities. Perceived control, on the other hand, relates to an individual's belief in their ability to influence and make a difference in their environment. The main goal of this study is to examine whether variables from the domain of personality traits, time perspectives, and perceived control are significant predictors of online and offline citizen activism. The sample consisted of 1183 Serbian citizens. After excluding participants who failed an attention check, the sample size was reduced to 1113 participants (65 % female) with a mean age of 28 (SD = 12.1). The following instruments were used: Personality traits from HECAXO model were measured with Mini IPIP-6 (α ranging from .67 to .75), Perceived control scale (α = from .61 to .78), time perspectives were measured by ZTPI-short (α = from .48 to .84), and online and offline activism was measured by questionnaire constructed for the purposes of this study: Citizen activism scale (online: α = .92, offline: α = .90, and results of PCA went in favor of construct validity of the questionnaire). The data was collected through Google Forms. Hierarchical linear regression analyses were conducted to examine the predictors of online and offline activism. The control variables (age, gender, political orientation) were included in the first block, followed by personality traits in the second block, time perspectives in the third block, and perceived control in the fourth block. For the online activism, ($F(934, 4) = 5.22, p < .001; R = .310; R^2 = .10$), significant predictors, in the final model, were extraversion ($\beta = 0.14, p < .001$), conscientiousness ($\beta = -0.11, p = .002$), neuroticism ($\beta = .09, p = .029$), openness to experience ($\beta = .07, p = .039$), positive future ($\beta = .10, p = .006$), personal responsibility for undesirable outcomes ($\beta = .07, p = .033$), Perceived others' control over desirable and undesirable outcomes ($\beta = .07, p = .026$). When it comes to the offline activism ($F(934, 4) = 4.68, p < .001, R = .295, R^2 = .087$), significant predictors, in the final model, were extraversion ($\beta = .07, p = .049$), conscientiousness ($\beta = -.17, p = .001$), honesty ($\beta = .07, p = .031$), positive future ($\beta = .12, p = .001$), personal responsibility for undesirable outcomes ($\beta = .07, p = .027$), and perceived others' control over desirable and undesirable outcomes ($\beta = .13, p = .001$). Although all the effects were small, extraversion, conscientiousness, and positive future orientation were consistent predictors across both forms of activism.

Keywords: citizen activism, personality traits, time perspectives, perceived control

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The power of warmth: Morality perception increases social-change oriented allyship with LGBTQ+ people

Ally action is not always driven by genuine intentions to challenge social inequalities. Intergroup-focused motivations involve actions that maintain social relations, in contrast, outgroup-focused motivations refer to the genuine intentions to improve the status of the disadvantaged group. The Stereotype Content Model specifies two fundamental dimensions of group perception: warmth and competence. The combination of these dimensions leads to different emotions and action intentions toward other groups. To identify conditions of social-change oriented collective action, we conducted two studies among heterosexual, cisgender allies of the LGBTQ+ community. We hypothesized that higher warmth and competence perceptions would predict social-change oriented actions, mediated by mobilizing emotions, such as empathy and outrage, whereas pity would predict strategic motivations. In a cross-sectional survey conducted in Hungary (N = 313), warmth was a stronger predictor of collective action motivations than competence (Cohen's $d = 0.02$; $\beta = 0.24$; S.E. = 0.06; 95%CI [0.15,0.40]; $p > .001$). To further explore ally motivations, we conducted two experiments in the more LGBTQ+ supportive context of Britain (N = 267) and in the more hostile context of Hungary (N = 304). The results demonstrated that manipulating perceptions of morality (i.e., warmth) effectively increased mobilization and empathy mediated the relationship between group perception and social-change oriented motivations, which in turn predicted higher ally intentions (Cohen's $d = 0.02$; Study 2a: $\beta = 0.01$; S.E. = 0.01; 95% CI [0.01,0.02]; $p = .040$; Study 2b: $\beta = 0.01$; S.E. = 0.01; 95% CI [0.01,0.02]; $p = .030$). We offer the first evidence that improving morality perception can lead to social change oriented and sustainable allyships.

Keywords: allyship, intergroup emotions, LGBTQ+, morality, warmth

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PORODIČNI ODNOSI

FAMILY RELATIONS

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Doživljaj odgovornosti roditelja i djeteta za nepoželjno ponašanje djeteta - ovisnost o kontekstu

Dosadašnja istraživanja pokazuju postojanje sklonosti stvaranju negativnih dispozicijskih atribucija prema posvojenoj djeci te pozitivnih dispozicijskih atribucija prema posvojiteljima, kao i da je taj efekt moderiran ponašanjem djeteta. Cilj ovog istraživanja je provjeriti atribucije studenata pomagačkih struka vezano uz eksternalizirano nepoželjno ponašanje djeteta na temelju površnih informacija o djetetovom obiteljskom kontekstu uz pretpostavku da postoje obiteljske situacije koje su za dijete više stresne (razvod roditelja i posvajanje u starijoj dobi) i manje stresne za dijete (biološki roditelji u braku i posvojenje u ranoj dobi).

U istraživanju je sudjelovalo 220 studenata prve godine studija socijalnog rada i 176 studenata prve godine studija predškolskog odgoja.

U svrhu istraživanja sastavljeno je 8 priča koje su se razlikovale prema stresnosti (4 obiteljska konteksta – dva s pretpostavljenom manjom razinom stresnosti i dva s pretpostavljenom višom razinom stresnosti) te dva roditeljska stila (permisivni i autoritativni). Sudionici su procjenjivali odgovornost roditelja i odgovornost djeteta za nepoželjno ponašanje djeteta, na skali od 9 stupnjeva.

Rezultati pokazuju da se procjene odgovornosti djeteta za vlastito ponašanje razlikuju ovisno o roditeljskom stilu koji je u priči sugeriran [$F(3, 378) = 18,15; p < ,001; \eta^2 = ,046$] pri čemu su te procjene više za djecu autoritativnih roditelja.

Procjene odgovornosti roditelja za nepoželjno ponašanje djeteta razlikovale su se s obzirom na obiteljsku situaciju [$F(1, 378) = 11,39; p < ,001; \eta^2 = ,083$] pri čemu je odgovornost roditelja koji su posvojili dijete u starijoj dobi procjenjivala značajno nižom od odgovornosti roditelja u ostale tri obiteljske situacije. Dobivena je i značajna razlika u procjenama i s obzirom na roditeljski stil [$F(1, 378) = 51,34; p < ,001; \eta^2 = ,120$], pri čemu je odgovornost permisivnih roditelja percipirana višom. Nadalje, dobivene su i razlike u



procjenama ovisno o grupi studenata [$F(1, 378) = 21,54; p < ,001; \eta^2 = ,054$], pri čemu su procjene odgovornosti roditelja kod budućih odgajatelja bile više nego procjene budućih socijalnih radnika, te značajne interakcije navedenih varijabli koje upućuju na ovisnost percepcije o kontekstu koji je prezentiran i o procjeniteljima.

Rezultati upućuju na to da u atribuciji ponašanja i procjeni odgovornosti djeteta i roditelja ulogu ima širi kontekst odrastanja i percepcija roditeljskog stila, a ne samo informacija o tome živi li dijete u posvojiteljskoj ili u biološkoj obitelji. Iako su procjene odgovornosti roditelja kod svih skupina u prosjeku više nego procjene odgovornosti djeteta, studenti smatraju dijete više odgovornim za vlastito ponašanje kad njegovi roditelji imaju autoritativan stil, vjerojatno jer razlog nepoželjnog ponašanja traže unutar samog djeteta.

Ključne reči: atribucije, nepoželjno ponašanje djeteta, roditeljski stilovi, posvojenje

The experience of parental and child responsibility for the child's undesirable behavior - context-dependent

Recent research indicates a tendency to form negative dispositional attributions toward adopted children and positive dispositional attributions toward adoptive parents, and that this effect is moderated by child behavior. The aim of this study is to examine the attributions of helping profession students regarding externally undesirable child behavior based on superficial information about the child's family context, assuming that there are family situations that are more stressful for the child (divorce and adoption at an older age) and less stressful for the child (biological parents married and adoption at an early age).

The study included 220 first-year social work students and 176 first-year preschool education students. For the purpose of the study, eight stories were created, varying in terms of stressfulness (four family contexts - two assumed to have lower stress levels and two assumed to have higher stress levels) and two parenting styles (permissive and authoritative). Participants evaluated the responsibility of the parents and the child for the child's undesirable behavior on a 9-point scale.

The results show that assessments of child responsibility for their own behavior differ depending on the parenting style suggested in the story [$F(3, 378) = 18.15; p < 0.001; \eta^2 = 0.046$], with higher assessments for children of authoritative parents.

Assessments of parental responsibility for the child's undesirable behavior differed based on the family situation [$F(1, 378) = 11.39; p < 0.001; \eta^2 = 0.083$], with parents who adopted a child at an older age being perceived as significantly less responsible than parents in the other three family situations. There was also a significant difference in assessments based on parenting style [$F(1, 378) = 51.34; p < 0.001; \eta^2 = 0.120$], with higher perceived responsibility for permissive parents. Furthermore, there were differences in assessments depending on the student group [$F(1, 378) = 21.54; p < 0.001$;



$\eta^2 = 0.054$], with future preschool educators' assessments of parental responsibility being higher than those of future social workers, and significant interactions of the mentioned variables indicating a dependency of perception on the presented context and the evaluators.

The results suggest that the attribution of behavior and assessment of child and parental responsibility are influenced by the broader context of upbringing and perception of parenting styles, rather than just information about whether the child lives in an adoptive or biological family. Although assessments of parental responsibility are, on average, higher than assessments of child responsibility in all groups, students consider the child more responsible for their own behavior when their parents have an authoritative style, likely because they attribute the undesirable behavior to the child itself.

Keywords: attributions, undesirable child behavior, parenting styles, adoption



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Relevance of Parental Monitoring Strategies in Explanation of Externalising Behaviour Problems in Adolescence: Mediation of Parental Knowledge

A process model of parental monitoring (PM) proposes that PM occurs in two distinct stages: before the adolescent goes out and when they return home. Parental and adolescent responses to monitoring interactions impact on future monitoring episodes. Research suggests that passive PM strategies (e.g. child disclosure) correlate with higher parental knowledge and less behavior problems. Self-reported measures were used on a sample of 507 Belgrade secondary school students (42.1% male) to examine the mediating effect (mediation analysis using JASP) of parental knowledge (the Scale of Parental Monitoring) on the relationship of PM strategies (Child Disclosure, Parental Solicitation and Parental Control) (the Scale of Parental Monitoring) with externalising problems (Aggressive and Rule-Breaking Behaviour) (ASEBA, YSR). The research results show that Parental Knowledge mediate the relation of Child Disclosure and Rule-Breaking Behaviour ($z = -6.544$, $p < .001$) and Parental Control and Rule-Breaking Behaviour ($z = -3.770$, $p < .001$). No direct link between Parental Control and Rule-Breaking Behavior, as well as Parental Solicitation and Rule-Breaking Behavior were established. Full mediation of the link between Child Disclosure and Aggressive Behavior



by Parental Knowledge is found (total indirect effect $z = -4.050$, $p < .001$). The research results were discussed in the context of the relevance of the PM strategies for greater parental knowledge and prevention of externalising problems in adolescence.

Keywords: parental monitoring, externalising problems, parental knowledge, adolescence.



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Relacije percepcije porodičnog okruženja i zadovoljstva životom u dijadama sibliinga: efekti pola i redosleda rođenja

Dosadašnja istraživanja ukazuju na to da su percepcija veće kohezivnosti i bolje organizacije unutar porodice pozitivno povezani sa zadovoljstvom životom, čemu dodatno doprinose topliji odnosi i manje rivalstvo između sibliinga. Međutim, dosadašnja istraživanja takođe daju nedosledne nalaze po pitanju doprinosa pola i redosleda rođenja dece na zadovoljstvo životom. Cilj ovog rada bio je usmeren na ispitivanje relacija između percepcije porodičnog okruženja i zadovoljstva životom u zavisnosti od toga na koji način redosled rođenja, pol i odnosi među sibliinzima određuju ovu relaciju. Uzorak se sastojao od 642 ispitanika (Mstarost = 24.16 godina), od čega je 65.6% ispitanika bilo ženskog pola. Oformljene su četiri grupe dijada: a) dva brata; b) dve sestre; v) starija sestra i mlađi brat; g) stariji brat i mlađa sestra. U ovom istraživanju korišćena su tri instrumenta: Adult Sibling Relationship Questionnaire (ASRQ) namenjen merenju konflikata, rivalstva i topline u odnosima između sibliinga; zatim Block Environment Questionnaire (BEQ) namenjen merenju percepcije porodične podrške i organizacije, te jednodimenzionalna skala za procenu zadovoljstva životom (SWLS). U skladu sa klasifikacijom dijada sibliinga, sprovedene su četiri hijerarhijske regresione analize. U prvom koraku modela su kao prediktorske varijable postavljene dimenzije percepcije porodičnog okruženja, a u drugom koraku su pridodate dimenzije odnosa među sibliinzima. Značajna promena doprinosa varijabli u drugom koraku analize uočena je samo u porodicama gde postoje dve sestre ($R^2 = .21$, $\Delta F = 4.61$, $p < .01$) i u porodicama gde je sestra starija od brata ($R^2 = .18$, $\Delta F = 3.74$, $p < .01$). Dobijeni rezultati sugerišu da je percepcija podrške unutar porodice najznačajniji prediktor koji ima efekat na zadovoljstvo životom, a u porodicama sa dve sestre ostvaruje i doprinos kroz redukciju efekata konflikta i rivalstva. U porodicama sa dve sestre se dobija nalaz da se percepcija porodične organizacije ima značajan samo efekat ($\beta = .12$; $r < .05$) ostvaren kroz redukciju rivalstva ($\beta = -.14$; $p < .05$) i konflikata ($\beta = -.14$; $p < .05$) među sestrama. U porodicama u kojima je sestra starija od brata, može se uočiti efekat varijabli rivalstva ($\beta = -0.16$; $p < .05$) i konflikata ($\beta = -0.14$; $p < .05$), koji u potpunosti opisuje relaciju između percepcije



porodične podrške i zadovoljstva životom. Rezultati ovog istraživanja ukazuju na to da porodična atmosfera sa izraženom podrškom i funkcionalnom organizacijom smanjuje verovatnoću pojave čestih konflikata i rivalstva među pojedinim grupama sibliinga. Čini se da percepcija izražene podrške i funkcionalne organizacije povećavaju verovatnoću evaluacije svoje porodice kao skladne, uprkos izazovima koji se javljaju u odnosima među sibliinzima, što doprinosi većem zadovoljstvu životom.

Ključne reči: percepcija porodičnog okruženja, pol, redosled rođenja, sibliinzi, zadovoljstvo životom

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Relations between the perception of the family environment and life satisfaction in sibling dyads: The effects of gender and birth order

Previous research indicate that the perception of greater cohesiveness and better organization within the family are positively related to life satisfaction, which is additionally contributed by warmer relations and lower rivalry between siblings. However, previous research also provides inconsistent findings regarding the contribution of gender and birth order of children to life satisfaction. This research was aimed to examine the relationship between the perception of the family environment and life satisfaction, depending on how birth order, gender and relationships between siblings determine this relation. The sample consisted of 642 subjects (Mage = 24.16 years), of which 65.6% were female. Four groups of dyads were formed: a) two brothers; b) two sisters; c) older sister and younger brother; d) older brother and younger sister. Three instruments were used in this research: Adult Sibling Relationship Questionnaire (ASRQ) aimed to measure conflicts, rivalry and warmth in sibling relations; Block Environment Questionnaire (BEQ) aimed to measure the perception of family support and organization, and the one-dimensional Satisfaction With Life Scale (SWLS). According to the classification of sibling dyads, four hierarchical regression analyzes were conducted. In the first step of the model, the dimensions of the perception of the family environment were set as predictor variables, and in the second step were added the types of the relationship between siblings. A significant change in the contribution of the variables in the second step of the analysis was observed only in families where there are two sisters ($R^2 = .21$, $\Delta F = 4.61$, $p < .01$) and in families where the sister is older than the brother ($R^2 = .18$, $\Delta F = 3.74$, $p < .01$). The obtained results suggest that the perception of support within the family is the most significant predictor that has an effect on life satisfaction, and in the families with two sisters it also has an effect by reducing the effects of conflict and rivalry. In families with two sisters, it was found that the perception of family organization has a significant effect ($\beta = .12$; $p < .05$) through the reduction of rivalry ($\beta = -.14$; $p < .05$) and conflicts ($\beta = -.14$; $p < .05$) among sisters. In



families where the sister is older than the brother, the variables of rivalry ($\beta = -0.16$; $p < .05$) and conflicts ($\beta = -0.14$; $p < .05$) can describe the relationship between the perception of family support and life satisfaction, in general. The results of this research indicate that a family atmosphere with strong support and functional organization reduces the likelihood of frequent conflicts and rivalries between certain groups of siblings. It seems that perception of expressed support and functional organization seems to increase the likelihood of evaluating one's family as harmonious, despite the challenges that arise in relationships between siblings, which contributes to greater life satisfaction.

Keywords: perception of family environment, gender, birth order, siblings, life satisfaction

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Possibilities and limitations of using different methods for diagnosing the type of attachment to the mother of preschoolers

The period of preschool childhood is a stage of rapid development of a maturing child. It is at this stage that mental processes become mediated, arbitrary, and the "decentration" of children's thinking takes place. The key role here is played by a significant adult, who, according to L.S. Vygotsky, performs the function of an intermediary, determines his view of the world and sets the zone of proximal development. The nature of the relationship with a significant adult sets the trajectory of the emotional, regulatory and personal development of the child. In this regard, diagnosing the type of attachment to the mother in preschool children seems to be a very important task both for identifying risk areas and reference points for the development of children.

The Joint Activity Test (in the mother-child dyad, it is a joint drawing and execution of the "architect-builder" test) is a widely used and a well-established tool for diagnosing attachment type in preschoolers. In this test, one can directly see the behavior of attachment, since the test involves moments of a situation of stress for the child. At the same time, this technique is laborious and difficult to implement due to the need to involve both the mother and the child. In this regard, an attempt was made to see how



consistent results are obtained from the test for joint activities with the following instruments:

- 1) N. Kaplan's projective technique (carried out with a child - it is an interview with a child based on projective pictures of the story - the mother flew away, the child stayed without her, the mother returned),
- 2) a survey of educators (for each child, educators filled out a questionnaire - 13 questions regarding the characteristics of adaptation and interaction of the child with his mother).

The sample consisted of 50 children aged 5-6, 50 mothers and 4 teachers.

No additional training was required for teachers, since the questionnaire contained the behavioral characteristics of the child and it was necessary for each question to choose the option that best characterizes what happens most often.

The conducted research allowed to come to the following conclusions:

- 1) the results of N. Kaplan's projective technique in 78% of cases coincide with the results of "joint activity", allow to determine the disorganized type of attachment, but in 8% of cases it is not possible to identify the type of attachment.
- 2) the analysis of the survey of educators allows us to differentiate children with secure and insecure attachment in 70% of cases, but does not allow us to determine the type of insecure attachment.

The main conclusion is the optimality of using N. Kaplan's projective technique for diagnosing the type of attachment to the mother in older preschool age.

Keywords: attachment to mother, preschool age, significant adult, test for joint activity, developmental trajectories

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Moderatorska uloga rezilijentnosti u vezi porodične traumatizacije i psihopatije

Porodične traume u detinjstvu imaju brojne negativne efekte na razvoj ličnosti, a smatraju se i jednim od uzroka psihopatije. Kod nekih osoba izloženih traumama javlja se zaštitni mehanizam rezilijentnosti koji umanjuje efekte traume ublažavajući razvoj psihopatoloških simptoma. Istraživanjem je provereno da li rezilijentnost moderiše vezu stepena izloženosti porodičnoj traumatizaciji i pojedinih dimenzija psihopatije.



Psihopatija je operacionalizovana Cleckey–Hareovim kriterijumima sa dimenzijama Interpersonalni stil (slaba kontrola agresije, beskrupuloznost, verovanje u sopstveni šarm i manipulativnost), Patološki afekt (niska emocionalnost, površan afekat, nedostatak empatije i osećanja krivice ili kajanja), Životni stil (visoka potreba za stimulacijom, sklonost zloupotrebi psihoaktivnih supstanci i niska odgovornost) i Antisocijalno ponašanje (sklonost fizičkoj agresiji, problemi sa zakonom i kriminalno ponašanje). Prigodni uzorak činilo je 105 mladića, učenika Tehničke škole „Ivan Sarić“ u Subotici i Srednje mašinske škole u Novom Sadu. Prosečan uzrast ispitanika je bio 16,44 godine, a kretao se u rasponu od 15 godina do 18. Među njima je 10% ispitanika bilo zakonski kažnjavano. U istraživanju su korišćeni Upitnik za procenu psihopatije (Psychopathy Assessment Questionnaire – PAQ), Upitnik za procenu rezilijentnosti (The Connor-Davidson Resilience Scale - CDRS) i Skala porodične traumatizacije nastala skraćivanjem Upitnika doživljene porodične traumatizacije (ACE-International Questionnaire - ACE-IQ). Rezultati potvrđuju da rezilijentnost parcijalno moderiše vezu između porodične traumatizacije i izraženosti psihopatoloških simptoma u domenima interpersonalnog stila ($b = -.30$, $t = -3.11$, $p < .01$) i antisocijalnog ponašanja ($b = -.23$, $t = -3.04$, $p < .05$). Za mladiće sa nižim ($b = .44$, $t = 4.14$, $p < .01$) i srednjim ($b = .17$, $t = 2.16$, $p < .05$) stepenom rezilijentnosti utvrđen je značajan efekat porodične traumatizacije na interpersonalni stil dok za mladiće s povišenom rezilijentnošću ovaj efekat nije bio značajan ($b = -.04$, $t = -.304$, $p > .05$). Sličan obrazac je utvrđen i za antisocijalno ponašanje. Za mladiće sa nižim ($b = .46$, $t = 5.41$, $p < .01$) i srednjim ($b = .24$, $t = 3.96$, $p < .01$) stepenom rezilijentnosti utvrđen je značajan efekat porodične traumatizacije na izraženost antisocijalnog ponašanja dok za mladiće s povišenom rezilijentnošću ($b = .83$, $t = .91$, $p > .05$) ovaj efekat nije bio značajan. Ovo istraživanje potvrđuje prethodne nalaze da rezilijentnost umanjuje efekat porodične traumatizacije na razvoj psihopatološke simptomatologije. Osim toga, dodaje i saznanje da je rezilijentnost vodi ka manjoj izraženosti interpersonalnog stila specifičnog za psihopatiju i manjoj sklonosti ka antisocijalnom ponašanju.

Ključne reči: psihopatija, Cleckey–Hareovi kriterijumi, rezilijentnost, porodična trauma

The moderating role of resilience in the relationship between family traumatization and psychopathy

Family traumas in childhood have numerous negative effects on personality development and are considered one of the causes of psychopathy. Some individuals exposed to trauma develop a protective mechanism called resilience, which helps mitigate its effects and reduce the development of psychopathological symptoms. Research has examined whether resilience moderates the relationship between family traumatization and the degree of expression of specific dimensions of psychopathy. Psychopathy has been operationalized based on Cleckley-Hare criteria, with dimensions including Interpersonal Style (poor impulse control, unscrupulousness, belief in one's own charm, and manipulateness), Pathological Affect (low emotional responsiveness, shallow affect, lack of empathy, and feelings of remorse or guilt), Lifestyle (high need



for stimulation, substance abuse tendency, and low responsibility), and Antisocial Behavior (propensity for physical aggression, legal problems, and criminal behavior). The convenience sample consisted of 105 male students from the "Ivan Sarić" Technical School in Subotica and Technical School in Novi Sad. The average age of the participants was 16.44 years, ranging from 15 to 18 years. Among them, 10% of the participants had a history of legal punishment. The study utilized the Psychopathy Assessment Questionnaire (PAQ), the Connor-Davidson Resilience Scale (CDRS), and the shortened modification of the ACE-International Questionnaire (ACE-IQ) which assesses family traumatization. The results confirm that resilience partially moderates the relationship between family traumatization and the expression of psychopathological symptoms just in the domains of interpersonal style ($b = -.30, t = -3.11, p < .01$) and antisocial behavior ($b = -.23, t = -3.04, p < .05$). A significant effect of family traumatization on interpersonal style was observed for boys with lower ($b = .44, t = 4.14, p < .01$) and moderate ($b = .17, t = 2.16, p < .05$) levels of resilience, whereas this effect was not significant for boys with higher resilience ($b = -.04, t = -.3.04, p > .05$). A similar pattern was found for antisocial behavior, with a significant effect of family traumatization on its expression for boys with lower ($b = .46, t = 5.41, p < .01$) and moderate ($b = .24, t = 3.96, p < .01$) levels of resilience, while this effect was not significant for boys with higher resilience ($b = .83, t = .91, p > .05$). This study confirms previous findings that resilience mitigates the effects of family traumatization on the development of psychopathological symptoms. It also contributes to the finding that resilience buffered the effects of family traumatization on specific interpersonal styles associated with psychopathy and a tendency towards antisocial behavior.

Keywords: psychopathy, Cleckley-Hare criteria, resilience, family trauma



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Majke dece blizanaca sa smetnjama u razvoju: kvalitativna studija izazova za adaptaciju i razrešenje

Briga o detetu sa smetnjama u razvoju je fizički i emocionalno veoma zahtevna za roditelje, a kada je briga usmerena na decu blizance zahtevi su značajno kompleksniji. Istraživanja potvrđuju da roditeljsko razrešenje prema detetovoj dijagnozi predstavlja



jedan od najznačajnijih protektivnih faktora za uspešnu adaptaciju roditelja. Razrešenje sagledavamo kao proces prihvatanja aktuelnog detetovog stanja, koga karakterišu smanjenje aktivnog tugovanja, te senzitivna usmerenost na detetove signale i potrebe. Premda razrešenje dobija značajnu pažnju istraživača i kliničara, ono do sada nije ispitivano u kontekstu blizanačkog roditeljstva.

Koncept razrešenja podrazumava da je u pitanju duži proces roditeljske adaptacije, ali sama procena je kategorijalne prirode (razrešen/nerazrešen). Stoga, korišćenje kvalitativne metodologije omogućuje dubinsku perspektivu i bolje razumevanje tog procesa. Naše istraživanje predstavlja dubinsku opservaciju majčinog razrešenja prema dijagnozi kako bi doprinelo razumevanju kompleksnosti adaptacije u blizanačkom roditeljstvu.

Ključno početno pitanje je bilo kako roditelji dece blizanaca, od kojih jedno ili oba deteta imaju smetnje u razvoju prolaze kroz proces adaptacije. U tu svrhu smo sprovedli fokus grupu sa centralnom temom usmerenom na adaptaciju i razrešenje. Pitanja su specifikovana po uzoru na Intervju o reagovanju na dijagnozu, te kreću od inicijalnih očekivanja vezanih za blizanačku trudnoću, preko saznanja da jedno ili oboje dece imaju smetnje u razvoju i osećanja proisteklih iz tog saznanja, faktora podrške i ličnih objašnjenja za stanje njihove dece. Pored toga, majke su popunile upitničku verziju Intervjua o reagovanju na dijagnozu (Sher-Censor et al., 2020).

U fokus grupu su bile uključene četiri majke, od kojih su dve imale oba deteta sa dijagnozom cerebralne paralize. Kod druge dve majke, jedno dete je imalo dijagnozu poremećaja iz spektra autizma, dok je drugi blizanac bio tipičnog razvoja. Prosečan uzrast dece je bio 5 godina i 3 meseca.

Analizom sadržaja su izdvojene tri ključne teme: emocionalna kriza pri saznanju da dete/deca imaju smetnje u razvoju; zabrinutost za budućnost; važnost podrške. Dodatna analiza diskusije i Upitnika o reagovanju na dijagnozu upućuje da su pod najvećim teškoćama za uspešnu adaptaciju majke dece sa autističnim poremećajem, što inicijalno nije očekivano, s obzirom da one imaju drugo dete tipičnog razvoja. Međutim, rezultat je u skladu sa dosadašnjim nalazima da su roditelji dece sa autizmom pod najvećim distresom i kontinuirano pokazuju najniže stope razrešenja u poređenju sa roditeljima dece sa drugim zdravstvenim stanjima. Ovo istraživanje potvrđuje potrebu za nastavkom sprovođenja fokus grupa, koje bi omogućile da se prepozna složena emocionalna dinamika roditelja i usmere terapijske intervencije za podršku roditeljskoj adaptaciji, takođe specifično u blizanačkom roditeljstvu.

Ključne reči: fokus grupa; razrešenje dijagnoze; blizanci

Zahvalnica: Istraživanje sprovedeno uz podršku Fonda za nauku Republike Srbije (#7744418, Genetic and environmental influences on psychological adaptation of children and adults – GENIUS)



Mothers of twins with developmental disabilities: A qualitative study of adaptation challenges and resolution

Caring for a child with developmental disabilities is physically and emotionally demanding for parents, and caring for twins is even more complex. Research confirms that parental resolution with the child's diagnosis is one of the most crucial protective factors for successful parental adaptation. Resolution is accepting the child's condition, characterized by a reduction in active grieving and sensitive orientation to the child's signals and needs. Although the resolution is receiving considerable attention from researchers and clinicians, it has not yet been examined in the context of twin parenting.

The concept of resolution implies that it is a relatively lengthy process of parental adaptation, but the assessment itself is of a categorical nature (resolved/unresolved). Using qualitative methodology enables an in-depth perspective and a better understanding of that process. Our research presents an in-depth observation of the mother's resolution of the diagnosis to contribute to the knowledge of the complexity of adaptation in twin parenting.

A key question was how parents of twins, one or both with developmental disabilities, pass through the adaptation process. We conducted a focus group with a central theme of adaptation and resolution. The questions are modeled according to the Reaction to Diagnosis Interview. It begins with the initial expectations related to the twin pregnancy, through the knowledge that one or both children have developmental disabilities and the feelings derived from that knowledge, support factors, and personal explanations for their children's condition. In addition, mothers completed the Reaction to Diagnosis Questionnaire (Sher-Censor et al., 2020).

Four mothers participated in the focus group, two of whom had twins diagnosed with cerebral palsy. Two other mothers had one child diagnosed with autism spectrum disorder, and the other twin had typical development. The average age of the children was 5 years and 3 months.

Content analysis identified three key themes: emotional crisis upon learning that the child/children have developmental disabilities, worry about the future, and importance of support. Additional analysis of the discussion and the Reaction to Diagnosis Questionnaire indicate that mothers of children with autistic disorder have the most significant difficulties in successful adaptation, which was initially unexpected, given that they have another child with typical development. However, the result is consistent with previous findings that parents of children with autism are under the highest distress and consistently show the lowest resolution rates compared to parents of children with other medical conditions. This research confirms the need to continue with focus groups, which would enable better recognition and understanding of the complex parental emotional dynamics and direct therapeutic interventions to support parental adaptation, specifically in twin parenting.



Keywords: focus group; resolution of diagnosis; twins

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PRIMENJENA SOCIJALNA PSIHOLOGIJA

APPLIED SOCIAL PSYCHOLOGY

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Dimenzionalnost srpske verzije Skale bliskosti odeće selfu na adolescentima

Odeća je naše najbliže materijalno okruženje, a ujedno i važan kanal komunikacije kojim prikazujemo svoj lični i grupni identitet. Ona je važna za naše subjektivno opažanje kvaliteta života i kao takva može da se razmatra sa aspekta psihološke bliskosti. Cilj ovog istraživanja je utvrđivanje dimenzionalnosti Skale bliskosti odeće selfu (eng. Proximity of Clothing to Self Scale; PCS-R) prevedene na srpski jezik namenjene merenju stava prema odeći u zavisnosti od sopstvenog selfa. Skala je sačinjena od šest faceta koje operacionalizuju efekat selfa na stavove prema odevanju u zavisnosti od konceptualizacije selfa. Facete određuju stepen u kom je odeća percipirana kao integralni deo selfa (self kao struktura), simbol identiteta, raspoloženja ili stava (self kao komunikacioni proces), odgovor na sudove drugih o sebi, način da se izrazi evaluativni aspekt samopoštovanja, način da se izrazi afektivni aspekt samopoštovanja i odrednica slike ili kateksisa tela. Prilikom primene skale na mladim osobama u SAD-u ustanovljeno je da ima četiri dimenzije - Odeća u odnosu na self kao proces i strukturu (npr. „Želim da moja odeća govori o meni tako da nema bez potrebe za dodatno pojašnjenje.“), Odeća u odnosu na self kao odgovor na sudove drugih o sebi (npr. „Važno mi je kako izgledam u svojoj odeći jer želim da me drugi prihvate.“), Odeća u odnosu na samopoštovanje (npr. „Kvalitetna odeća koja mi dobro stoji čini da se osećam kompetentno.“) i Odeća u odnosu na sliku ili kateksis tela (npr. „Biram odeću koja naglašava delove mog tela koji mi se sviđaju.“). Istraživanje je sprovedeno u Gimnaziji “Veljko Petrović“ u Somboru na prigodnom uzorku sačinjenom od 150 učenika (55% učenica) uzrasta od 15 do 19 godina. Skala bliskost odeće selfu sastavljena je od 24 stavke u obliku tvrdnji praćenih petostepenim Likertovim skalama. Rezultati eksploratorne faktorske analize (metod glavnih osa) sugerišu značajnost tri faktora koji zajedno obuhvataju 49% zajedničke varijanse. Faktori su redom nazvani Odeća u odnosu na self kao strukturu i samopoštovanje („Kada se osećam dobro u vezi sa onim što nosim, onda sam siguran u sebe.“). Odeća u odnosu na self kao komunikacioni proces („Često nosim određenu

odeću da bi ljudi znali kakva sam osoba“) i Odeća u odnosu na sliku ili kateksis tela („Nosim određene stilove odeće da bih promenio način na koji moje telo izgleda.“). Korelacije među faktorima su se kretale od ,23 do ,37. Utvrđena faktorska struktura ne odgovara prethodno dobijenoj na američkim adolescentima, ali su dobijeni faktori interpretabilni i sačinjeni od celovitih i jasno raspoređenih faceta. Pouzdanost (α) supskala određenih preko matrice sklopa se kretala od ,74 do ,87. Potrebno je dalje raditi na adaptaciji skale u cilju postizanja boljih psihometrijskih karakteristika.

Ključne reči: self, oblačenje, adolescenti, dimenzionalnost

Dimensionality of the Serbian Version of the Proximity of Clothing to Self Scale on the Adolescents

Clothing is our closest material environment, but it is also an important channel of communication through which we display our identity. It is important for our subjective perception of the quality of life and as such can be analyzed from the aspect of psychological closeness. The aim of research was to determine dimensionality the Proximity of Clothing to Self Scale (PCS-R) translated to the Serbian language. PCS-R is designed to measure individual attitudes towards clothing in relation to one's self. The scale consists of six facets that operationalize the effects of (variously conceptualized) self on attitudes toward clothing. PCS-R consists of six facets that determine the degree to which clothing is perceived as an integral part of the self (self as structure), a symbol of identity, mood, or attitude (self as a communicative process), a response to judgments of others about oneself, a means of expressing evaluative aspects of self-esteem, affective aspects of self-esteem, and a determinant of body image or body cathexis. When applied to adolescents in the USA, the scale was found to have four dimensions - Clothing in relation to self as process and structure (e.g., "I want my clothes to make a statement about me without any need for words."), Clothing in relation to self as a response to judgments of others about oneself (e.g., "How I look in my clothing is important because I want others to accept me."), Clothing in relation to self-esteem (e.g., "Good quality clothes that look good on me make me feel competent."), and Clothing in relation to body image or body cathexis (e.g., "I choose clothes that accent the parts of my body that I like."). The study was conducted in Gymnasium "Veljko Petrović" in Sombor using a convenience sample of 150 students (55% female) aged 15 to 19 years. PCS-R consists of 24 items in the form of statements accompanied by five-point Likert scales. The results of principal axis factoring suggested the significance of three factors that collectively accounted for 49% of the common variance. The factors were respectively named Clothing in Relation to Self as Structure and Self-esteem ("When I look good in what I wear, I feel content with myself."), Clothing in Relation to Self as Communication Process ("I often wear certain clothing to let people know what kind of person I am."), and Clothing in Relation to Body Image or Body Cathexis ("I often wear specific clothing so that people can know what kind of person I am"). Correlations



between factors were in the range from .23 to .37. The structure deviates from the one determined on USA adolescents, but it was interpretable, and facets were coherent and clearly separated. The reliability (α) of subscales was in the range from .74 to .87. In order to enhance psychometric characteristics, there is a need for further work on the adaptation of the scale.

Keywords: self, clothing, adolescents, dimensionality



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Generativnost u odrasloj i starijoj odrasloj dobi

Cilj istraživanja je bio ispitati da li postoji statistički značajna razlika u generativnosti između starosnih kategorija od 49-64 (odraslo doba), 64-74 (rana starost), 75-84 (srednja) i 85 -92 (duboka starost). Uzorak je činilo 110 ispitanika, od kojih je 88 ženskog pola, prosečne starosti 66 godina, od kojih je deo ispitanika prikupljen preko Ambulante psihijatrije u Vrbasu, a deo iz Gerontološkog centra Novog Sada.

Za potrebe istraživanja korišćena je Loyola skala generativnosti (Mc Adams i de Aubin, 1992) koja sadrži 17 tvrdnji, a za obradu podataka je korišćena jednosmerna analiza varijanse (ANOVA).

Uočene su statistički značajne razlike između starosnih kategorija u pogledu tvrdnji koje se odnose na zainteresovanost za pedagoško i kreativno delovanje, te i odgovornost za unapređenje društvene zajednice.

Grupa ispitanika srednje starosti je značajnije više orientisana ka pedagoškoj delatnosti u odnosu na starosnu grupu od rane starosti ($p=0.025$). Moguće da su u tom dobu spremniji za poučljivost, jer su stekli životno iskustvo i mudrost, i osećaju se adekvatno da prenose znanja naraštajima. Ispitanici grupe duboke starosti se značajno manje trude da budu kreativni u odnosu na ispitanike odraslog doba ($p=0.001$) i ispitanike rane starosti ($p=0.020$). Ispitanici grupe duboke starosti su značajno manje odgovorni za unapređenje uže zajednice u kojoj žive u odnosu na ispitanike odraslog doba ($p=0.005$) i ispitanika srednje starosti ($p=0.004$); pretpostavljamo da su manje spremni za opisane aktivnosti usled ograničenja nastalih procesom biološkog starenja. Generativne tendencije su prisutne u odrasloj i starijoj odrasloj dobi sa tim što su najmanje izražene u dubokoj starosti. U tom dobu su ličnosti manje aktivno uključene u društvo, u ulogu roditelja, a samim tim je i ograničena mogućnost za generativnim delovanjem.



Interesantno bi bilo isto posmatrati i u kontekstu obrazovanja, kulture, roda, komponente generativnosti koja se meri.

Naše istraživanje je pokazalo da se generativna funkcija održava u svim fazama starosti u skladu sa mogućnostima, što ističe Erikson kao važno.

Ključne reči: Ključne reči: generativnost, odrasla, starija odrasla dob

Generativity in adulthood and older adulthood

The aim of the research was to examine whether there is a statistically significant difference in generativity between the age categories of 49-64 (adulthood), 64-74 (early old age), 75-84 (middle age) and 85-92 (old age). The sample consisted of 110 respondents, of which 88 were female, with an average age of 66 years, of which a part of the respondents was collected through the Psychiatry Outpatient Clinic in Vrbas, and a part from the Gerontological Center of Novi Sad.

For research purposes, the Loyola scale of generativity (Mc Adams and de Aubin, 1992) was used, which contains 17 statements, and one-way analysis of variance (ANOVA) was used for data processing.

Statistically significant differences between age categories were observed in terms of claims related to interest in pedagogical and creative activities, as well as responsibility for the improvement of the social community.

The group of middle-aged respondents is significantly more oriented towards pedagogic activities compared to the early age group ($p=.025$). It is possible that at that age they are more ready to teach, because they have gained life experience and wisdom, and they feel adequate to pass on knowledge to the next generation. Respondents of the old age group make significantly less effort to be creative compared to respondents of adulthood ($p=.001$) and respondents of early age ($p=.020$). Respondents of the age group are significantly less responsible for the improvement of the immediate community in which they live compared to respondents of adulthood ($p=.005$) and respondents of middle age ($p=.004$); we assume that they are less ready for the described activities due to limitations caused by the biological aging process. Generative tendencies are present in adulthood and older adulthood, with the fact that they are least pronounced in old age. At that age, individuals are less actively involved in society, in the role of parents, and therefore the possibility of generative action is limited. It would be interesting to observe the same in the context of education, culture, gender, the component of generativity that is measured.

Our research has shown that the generative function is maintained at all stages of age in accordance with the possibilities, which Erikson points out as important.

Keywords: Keywords: generativity, adulthood, older adulthood





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Unraveling Resistance to Educational Change: The Role of Cognitive and Ideological Conservatism and Perceived Identity Threat among Teachers in Hungary, research protocol

Individuals exhibiting high levels of cognitive and ideological conservatism may resist change due to their preference for maintaining norms and routines. The goal of this study is to reveal the relationship between cognitive and ideological conservatism, along with perceived identity threat and resistance to educational change among teachers in Hungary.

We assumed that teachers who perceive the social prestige of their profession and thus their own professional identity, their place in society, and their professional competence as being questioned and devalued, would be vulnerable in their professional identity. Vulnerable identities may contribute to resistance to change and may be expressed in the practice of, or agreement with, forms of action that preserve the social order.

The presentation will report the results of a pre-registered survey study among teachers in Hungary (N=395), selected using convenience sampling. The participants were drawn from both urban and rural areas, encompassing public and private schools at different levels of education (e.g., primary, secondary). Demographic information such as age, gender, educational qualifications, and teaching experience was collected to characterize the sample.

Multiple instruments will be used to measure the variables of interest. The dependent variable, resistance to educational change, will be assessed using a scale with specific items related to educational change. Cognitive conservatism will be measured using the Need for Closure Scale and the Need for Cognition scale. Ideological conservatism will be assessed through scales measuring right-wing authoritarianism and institutional system justification. Perceived identity threat will be measured using scales for identity threat, collective anxiety, and collective fear. Covariates such as identification with the teacher role and sociodemographic variables will also be measured. The analyses will include correlations between variables and structural equation modeling to examine the relationship between conservatism, identity threat, and resistance to educational change. Outliers will be identified using Mahalanobis distance and removed.

We expect that higher levels of cognitive and ideological conservatism will predict increased resistance to educational change. We also expect that a higher level of perceived threat to teacher identity will predict increased resistance to educational change. Finally, we expect an interactional effect of cognitive and ideological conservatism and perceived level of identity threat on resistance to educational change.



By casting light on these relationships, our research will offer valuable insights for policymakers and education leaders seeking to implement reforms, while also fostering a broader understanding of the psychological mechanisms underpinning resistance to change.

A pdf for the preregistration of the study is available here:

https://aspredicted.org/SNN_5KX

Keywords: education, teachers, resistance to change, conservatism



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Toksični odnosi na radu i radno postignuće

Cilj istraživanja bio je ispitivanje značaja učestalosti toksičnih radnih odnosa za radno postignuće uposlenika kao i analiza moderatorskog efekta demografskih odlika na prethodnu relaciju. Kao konceptualni okvir za ispitivanje toksičnih radnih odnosa poslužio je Faustovski sindrom, novi pristup koji toksične radne odnose razmatra kao organizacijsku manifestaciju klijentelističkog ugovornog odnosa između patrona i njegovih sledbenika. Majstorović (2023) navodi pet faceta ovog sindroma: lojalnost patronu, subverzivno ponašanje prema organizaciji, manipulacija sistemom odlučivanja, praksa zastrašivanja i isključivanja i negativni stavovi prema kolegama. Radno postignuće je određeno kao sve akcije koje uposlenici preduzimaju, a koje doprinose ciljevima organizacije (Campbell & Wiernik, 2012). Indikatori radnog doprinosa su ukupna produktivnost, kvantitet, kvalitet, leaderske, komunikacijske, administrativne i interpersonalne kompetencije, uloženi trud, stručna znanja i usaglašenost sa pravilima, grupisani u dve dimenzije: ekonomski i kontekstualni radni učinak (Viswesvaran & Ones, 2000). Na prigodnom uzorku od 560 ispitanika, od kojih je 325 (58%) ženskog pola, prosečne starosti 38.84 godine, koji su u trenutnoj organizaciji bili zaposleni najmanje 6 meseci, prikupljeni su podaci pomoću upitnika za merenje toksičnih radnih odnosa - FAUST 2 (Majstorović, 2021), upitnika radnog postignuća (URAP-1; Majstorović i Todorović, 2023) i upitnika demografskih odlika. Istraživanje je putem Google forme sprovedeno tokom marta i aprila 2023. godine. Rezultati analize podataka pokazuju da uposlenici koji retko ili često nalaze indikatore Faustovskog sindroma u svojoj organizaciji, značajno lošije procenjuju svoje leaderske, administrativne i interpersonalne kompetencije i manji uloženi trud u radu, u odnosu na uposlenike koji u svom radnom okruženju ne nalaze takve indikatore. Na nivou dimenzija radnog postignuća, rezultati su pokazali da retka prisutnost Faustovskog sindroma nužno ne narušava ekonomski učinak, ali značajno narušava dimenzije kontekstualnog radnog učinka ($F(2,559)=7.559$, $p=.001$, $\eta^2=.026$). Nije nađen moderatorski efekat pola, radne uloge i staža na osnovnu relaciju. Zaključeno je da retka, pre nego česta, prisutnost indikatora toksičnih radnih



odnosa doprinosi narušavanju socijalnih kompetenci kao i da smanjuje spremnost za zalaganje uposlenika. Značaj ovog istraživanja je u tome što ukazuje na važnost uređivanja radnih odnosa kao faktora radnog doprinosa uposlenika.

Ključne reči: Ključne reči: toksični radni odnosi, Faustovski sindrom, radno postignuće.

Toxic workplace relationships and work performance

The aim of this study was to examine the importance of frequency of the toxic workplace relationships for the work performance of employees, as well as the moderating effect of demographic characteristics on the previous relationship. The Faust syndrome, a new approach that considers toxic work relations as an organizational manifestation of the clientelistic contractual relationship between the group leader (patron) and its followers, served as a conceptual framework for examining toxic workplace relationships. Majstorović (2023) lists five facets of this syndrome: patron loyalty, subversive attitude towards the organization, manipulation of the decision-making system, practice of intimidation and exclusion, and negative attitude towards colleagues. Work performance consists of all the actions that employees take that contribute to the organization goals (Campbell & Wiernik, 2012). Indicators of work contribution are overall productivity, quantity, quality, leadership, communication, administrative and interpersonal competencies, effort, professional knowledge and compliance with rules, grouped into two dimensions: economic and contextual work performance (Viswesvaran & Ones, 2000). In an at-hand sample of 560 employees, of whom 325 (58%) were women, with an average age of 38.84, employed in their current company for at least six months, data was collected using a toxic workplace relationship questionnaire (Faust; Majstorović, 2021), work performance questionnaire (URAP-1; Majstorović & Todorović, 2023), and demographic characteristics profile. The research was conducted via a Google form, during the months of March and April, 2023. The results of the data analysis show that employees who rarely or often find indicators of the Faust syndrome in their organization, compared to employees who do not find such indicators in their work environment, evaluate their leadership, administrative and interpersonal competencies significantly worse and put less effort into their work. At the level of dimensions of work performance, results showed that the rare presence of the Faust syndrome does not necessarily impact employees' economic performance, but significantly impairs the dimensions of contextual work performance ($F(2,559)=7.559, p=.001, \eta^2=.026$). Moderation effect of gender, work role and job tenure was not detected. It was concluded that the rare, rather than frequent presence of indicators of toxic workplace relationships contributes to the impairment of social competencies and reduces the employees' willingness to commit. The significance of this research is that it highlights the importance of regulating workplace relationships, as they are the important factor of employee work contribution.

Keywords: toxic workplace relationships, Faust syndrome, work performance.



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Unpacking destination conspicuousness – Investigating its antecedents and consequences

The marketing concept of conspicuous consumption applied to tourism destinations has remained an insufficiently researched area in the present tourism literature. To date, only a few studies have focused on tourists' perception of destination conspicuousness and its consequences, including their intention to revisit the destination. Thus, the present research aimed to bridge this literature gap by exploring destination brand experience and destination personality as antecedents and destination attachment and destination loyalty as consequences of tourists' perception of destination conspicuousness. The survey research was conducted on the sample of 502 tourists from Serbia (male 21.7%, female 78.3%, $M(\text{age})=37.34$) who visited one of the following coastal tourism destinations in Europe – Santorini, Mykonos, Nice, Monaco, Ibiza, and Palma de Mallorca. To test the hypotheses, structural equation modeling (SEM) was applied. The main findings confirmed that, among destination brand experience dimensions, Sensory brand experience had the strongest positive influence on Materialistic hedonism ($B=.196, p<.05$), the dimension of tourists' perception of destination conspicuousness. Also, Affective brand experience was confirmed to negatively influence Communication of belonging ($B=-.176, p<.05$). On the other hand, findings confirmed the negative impact of destination personality on tourists' perception of destination conspicuousness. Specifically, Sincerity was confirmed to negatively impact Status demonstration ($B=-.113, p<.05$). Besides, findings showed the positive influence of tourists' perception of destination conspicuousness on destination attachment. Precisely, Interpersonal mediation ($B=.389, p<.05$) and Materialistic hedonism ($B=1.248, p<.05$) were confirmed to positively influence Place identity. Moreover, it was confirmed that Interpersonal mediation, dimension of tourists' perception of destination conspicuousness, negatively shaped destination loyalty ($B=-.323, p<.05$). In addition to significant theoretical implications, the present research contributes to the existing tourism literature by offering insightful practical implications for destination marketers and managers on how to take advantage of destination conspicuousness to enhance the destination brand and attract potential tourists to the destination.

Keywords: destination conspicuousness, destination brand experience, destination personality, destination attachment, destination loyalty



RACIONALNA I IRACIONALNA SOCIJALNA UVERENJA

RATIONAL AND IRRATIONAL SOCIAL BELIEFS

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Low cognitive reflection and high experiential thinking style predict an irrational mindset

Epistemically unfounded beliefs and biases that are not compliant with normative rationality and are typically resistant to counter-evidence can be labeled jointly under the term Irrational Mindset. These different aspects of irrational thinking and reasoning are usually measured separately, in specific domains - for example, research focuses either on cognitive biases (e.g., belief bias, base rate bias), or on epistemically unfounded beliefs (e.g., superstition, conspiracy mentality). However, research suggests these beliefs and biases are interrelated, indicating that they might have a shared root. This shared core of the irrational mindset can, in turn, be traced back to a common approach to information processing - one that is characterized by more intuitive and less analytical thinking.

In the present study, we explored (1) whether various aspects of the Irrational Mindset converge toward one latent factor and if so, (2) could this Irrational mindset factor further be tracked to a disposition for less reflective and more intuitive thinking.

A sample of 224 panelists (54% females, Mean age = 41.5, SD = 12.64) completed an online set of questionnaires and were remunerated for their participation. We collected data on ten irrational mindset variables, including epistemically unfounded beliefs (superstition, conspiracy mentality, medical conspiracy beliefs, magical beliefs about health, doublethink) and cognitive biases (commitment bias, naturalness bias, belief bias, illusory correlation, and probability reasoning biases). We also assessed thinking dispositions: (1) rational and experiential thinking styles, using Rational-Experiential Inventory (REI), and (2) cognitive reflection using Cognitive Reflection Task (CRT).

A principal component analysis on the Irrational Mindset variables clearly indicated a single-factor solution, explaining 31.2% of total variance. All Irrational Mindset variables loaded onto this factor, although cognitive biases had somewhat lower loadings ($.31 < w$



< .44) compared to unfounded beliefs (.59 < w < .83). A multiple regression analysis indicated that 20.8% of the Irrational Mindset's variance could be explained by thinking dispositions ($F(3, 223) = 20.50, p < .001$). As expected, Irrational Mindset was predicted by lower cognitive reflection ($\beta = -.34, p < .001$) and higher experiential thinking style ($\beta = .29, p < .001$), while rational thinking style was not a significant predictor ($\beta = .07, p = .31$).

Despite the fact that these diverse aspects of the irrational mindset differ both in their content and way of measurement, the obtained pattern of results strongly supports the idea of a shared core for different manifestations of irrationality. We discuss the implications of this "irrational core" as well as its importance for various detrimental outcomes, such as, for example, the use of questionable health practices.

Keywords: irrational beliefs, cognitive biases, thinking styles, irrational mindset, irrationality

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They see me rollin', they hatin': Negative effect of conspiratorial thinking on perceived reflexive discrimination

Among numerous consequences of covid-19, those infected and suffering from its adverse long-term consequences might also experience negative social perceptions of themselves (reflexive discrimination; RD). Similarly, there is ample evidence that belief in conspiracy theories (CT) too can have negative social consequences. In line with Rejection-Identification Model, conspiratorialists can hold increasingly negative attitudes to out-group and actively discriminate against them, which can lead to social isolation as they increasingly interact with like-minded people. The negative effects of conspiratorial beliefs for the believers, however, remain understudied. The aim of our study was thus to explore the negative social consequences conspiratorial thinking can have for the individual and their psychological and relational well-being in (post-)pandemic context. We expected received support to attenuate perceived RD, while certain demographic characteristics (e.g., lower education, SES, age), severity of the infection, and stronger belief in covid-related CT would contribute negatively, even after controlling for other variables. Furthermore, we explored whether belief in CT moderates the relationship between received support and severity of the infection, and



RD. To test our hypotheses, we used a sample of adult Slovenians (aged 18-65, $M = 42.5$, $SD = 14.2$), drawn from a larger dataset on factors and consequences of long covid. It comprised 980 individuals (62% female) who – in an online survey – provided complete data on their demographics, covid-19 variables (history and severity of the infection, vaccination status, adherence to preventive measures), received support during infection, belief in CT, and RD (e.g., I felt others were better/afraid of me). In a linear regression, each group of predictors improved model's predictive power. In the final step ($F(11, 968) = 20.73$, $p < .001$, $R^2 = .18$), younger age, financial strain, severity of infection, and conspiratorial thinking contributing to higher, while received support to lower RD (conspiratorial beliefs: $\Delta R^2 = .02$, $F = 27.48$, $p < .001$). In separate models, interaction terms of conspiratorial beliefs with both severity of infection ($\beta = .34$, $p < .001$) and received support ($\beta = .24$, $p = .02$) were significant, suggesting that for those with strong conspiratorial beliefs, the contribution of more severe infection on discrimination is amplified, while the protective nature of support received is nearly neutralised. While the correlations were modest (likely due to low variability in RD scores), it might be warranted to account for personal beliefs in dealing with consequences of the infection as they may render both instrumental and emotional support less effective. Taken together, the results suggest conspiratorial thinking can have adverse effects for the believer and might exacerbate their progression through the conspiratorial rabbit hole as higher RD might reinforce such beliefs.

Keywords: conspiracy theories, discrimination, social isolation, group relations, long covid

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Myside bias as a default position in argumentation: does it require cognitive load?

Myside bias represents a human tendency to produce and evaluate arguments in a manner biased towards one's own beliefs. Default interventionist dual process theories aim to define this bias as a result of underperforming type 2 processes, failing to inhibit type 1 processes and override their intuitive answers. Alternatively, the argumentative theory of reasoning (ATR) proposes thatmyside bias isn't a bug, but a feature of reasoning, as the primary function of reasoning is to rationalize existing beliefs and



persuade others. Therefore, the aim of this study was to examine the roles of type 1 and type 2 processes in myside bias in argument evaluation by implementing a two-response paradigm that enables argument evaluation based on imposed intuitive, as well as enabled deliberative processing. A pilot study (N=28) was conducted to collect different arguments on the topic of transgender rights as a basis for argument construction for the main study. A second study was carried out to collect measures of attitude towards transgender people, as well as relevant measures of cognitive ability and cognitive styles. In the main study, participants (N=73) evaluated arguments under a time limit, followed by an assessment of feeling of rightness, then again without a time limit, followed by a final judgment of confidence in the answer given. They also completed tasks of syllogistic reasoning, with neutral and trans-related content. Results indicate no attitude polarization regarding transgender rights in this sample, which is why some participants under a certain cut-off score were eliminated, leaving a sample (N=68) categorized wholly as pro-trans. Two-way repeated measures ANOVA shows a significant effect of belief ($F(1,66) = 44.615, p < .05$), as the participants evaluated pro-trans, congruent arguments as stronger than anti-trans, incongruent arguments. In other words, participants demonstrated myside bias. Effect of the time limit appeared insignificant, implying that deliberative processing has no success in overriding intuitive answers. Furthermore, significant correlations with argument evaluations can only be found in attitude importance ($r = .307$ with a time limit and $r = .303$ with no limit), indicating that myside bias is completely independent of cognitive variables. In support of this conclusion is the independence of argument evaluation and syllogistic reasoning, no matter the content. The results are discussed in light of the conflict of default interventionist models and argumentative theory of reasoning, further implications for this research as well as the bigger picture of myside bias and dual processes.

Keywords: myside bias, informal reasoning, dual process, argument evaluation, argumentative theory of reasoning

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Cognitive Footprint of Scientistic Beliefs

Trust in science and scientists, although socially desirable and rational, can at times behave similarly to religiousness, i.e. increases in the presence of an existential threat. In its excessive form, labeled scientism, trust in science grants science capabilities it



practically or logically does not have, and the scientists the qualities and moral virtues they do not necessarily possess. Having that in mind, it seems that uncritical trust in science and scientists can behave as a heuristic, serving as a way to simplify the thinking process and ease everyday cognitive efforts. The question remains how much uncritical trust in science we can explain by the individual differences in basic cognitive tendencies. In this research, we explored cognitive antecedents of uncritical trust in science and scientists, namely the role of the need for cognitive closure, uncertainty tolerance, cognitive reflexivity, and intelligence in uncritical trust in science and scientists. A total of $N = 341$ participants (102 men, $MAGE = 41.21$, $SDAGE = 11.46$) completed a previously constructed Scientific beliefs questionnaire for measuring uncritical trust in science (e.g., opinion on possibilities of reaching absolute truth, the malleability of scientific facts, acceptability of believing in higher powers, etc) and scientists (e.g., opinion on how much are scientists truthful, impartial, ethical, etc), Need for Closure questionnaire, Uncertainty Tolerance questionnaire, Cognitive reflection test, and verbal analogies test for measuring intelligence. We observed a positive correlation between uncritical trust in science and the need for closure ($r = .11$, $p = .04$), a negative between uncritical trust in science and uncertainty tolerance ($r = -.15$, $p = .01$), and negative correlations between uncritical trust in scientists and both cognitive reflection ($r = -.11$, $p = .04$) and verbal intelligence ($r = -.16$, $p < .01$). Regression analyses showed these variables explain no more than 2% of the variance of uncritical trust in science ($F(4) = 1.97$, $R^2 = .02$, $p = .10$) and 4% of uncritical trust in scientists ($F(4) = 3.14$, $R^2 = .04$, $p = .02$) with only intelligence significantly and negatively contributing to predicting uncritical trust in scientists. The results suggest people prone to uncritical trust in science and scientists tend to oversimplify the world in two different ways. On one hand, as it provides a coherent worldview, uncritical trust in science can act as a resolution of general uncertainty, thus serving a motivational role. On the other hand, uncritical trust in scientists may provide a shortcut to reliable knowledge. Having in mind the effect sizes, however, these cognitive processes are not central to the endorsement of scientific beliefs. Future studies should include basic personality traits and ideological/social variables that may prove more important in understanding individual differences in uncritical trust in science and scientists.

Keywords: scientism, trust in science, trust in scientists, need for closure, uncertainty tolerance, cognitive reflexivity, intelligence

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SAJBERPSIHOLOGIJA

CYBERPSYCHOLOGY

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Reasons for gadgets use as predictors of self-satisfaction in the context of loneliness among adolescents

Digital technologies are a significant part of modern life for adolescents. Gadgets take a central place in teenagers' lives because their learning, communication, and relaxation are carried out using devices. Adolescents use gadgets for a number of reasons, and they may also influence their well-being in different ways. Loneliness was detected as an important predictor for both gadgets use and well-being. The aim of the current study is to detect relationships between loneliness and reasons for gadget use, and self-satisfaction as dimensions of psychological well-being.

The respondents of the study are 2103 secondary school students ranging in age from 13 to 15 years old ($M = 14.12$, $SD = .76$), 42% male, 58% female. Data collection was performed with questions about social, information-oriented, and entertaining reasons for gadget use, the Self-Satisfaction Scale, and the Three-Item Loneliness Scale. All materials were presented to participants in the official language. Correlation and regression analyses were run.

According to the analysis, Self-Satisfaction has a positive correlation with Social use of gadgets ($r = .16$, $p < .001$) and a negative one with Loneliness ($r = -.38$, $p < .001$). Loneliness has a positive correlation only with Information-oriented use of gadgets ($r = 0.16$, $p < 0.001$). Self-Satisfaction was a dependent variable in hierarchical regression analysis. On the first step, reasons for gadget use were added as independent variables ($F(5, 2097) = 23.47$, $p < .001$, $R^2 = .05$) with control of age and gender. Gender ($\beta = -.16$, $p < .001$) and Entertaining reasons ($\beta = -.07$, $p < .01$) were identified as negative predictors, Social use of gadgets was detected as a positive predictor of Self-Satisfaction ($\beta = .22$, $p < .001$). On the second step, Loneliness was added in this regression model as an independent variable ($F(6, 2096) = 78.17$, $p < .001$, $R^2 = 0.18$). Positive significant predictors were Social use of gadgets ($\beta = .18$, $p < .001$), and Information-oriented use of gadgets ($\beta = .05$, $p < .05$), and negative ones were Gender ($\beta = -.06$, $p < .01$), Entertaining reasons ($\beta = -.06$, $p < .01$) and Loneliness ($\beta = -.39$, $p < .001$).

Our results demonstrate that gadget use for social reasons such as sending messages, talking, or exchanging photos may increase adolescents' self-satisfaction, while gadget use for playing games and watching TV may lower their well-being. It could be concluded that loneliness also reduces adolescents' self-satisfaction. On the other hand, gadget use for social and information-oriented reasons among lonely adolescents may increase their satisfaction with their personalities. It could be associated with the establishment of good relationships with peers by using digital technologies or the achievement of intellectual goals through schoolwork. Current findings support previous findings that girls are less satisfied with their personalities than boys.

Keywords: social, information-oriented and entertainment reasons for gadgets use, adolescents, loneliness, self-satisfaction



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Dobrobit adolescenata koji intenzivno igraju videoigre: dnevnička studija

Adolescenti su manje savjesni i impulzivniji od odraslih te prolaze kroz razdoblje intenzivnog razvoja, a neki od njih provode puno sati igrajući video igre. Istraživači, roditelji i kreatori javnih politika se s pravom pitaju kakvi su učinci videoigara na dobrobit adolescenata. Metodologija dnevničkih studija omogućuje smanjenje retrospektivne pristranosti i proučavanje odnosa unutar osobe, ali je rijetko korištena u istraživanju učinaka videoigara. Cilj ovog istraživanja bio je proučiti odnose između svakodnevnog zadovoljenja i frustracije osnovnih psiholoških potreba u životu izvan videoigara i u videoigrama, vremena igranja i zadovoljstva životom adolescenata koji intenzivno igraju videoigre. Sekundarni cilj je bio ponnije istražiti ponašanja unutar videoigara na dnevnoj razini i njihov odnos s dobrobiti. Istraživanje je provedeno u Hrvatskoj na N=125 (Mdob=17.28, 92% mladića) adolescenata koji su pohađali srednju školu i svakodnevno igrali videoigre. Sudionici su u istraživanju sudjelovali putem mobilne aplikacije Expi Well. Prvo su ispunili početni upitnik. Potom su osam dana za redom ujutro odgovarali na pitanja o kvaliteti i trajanju sna protekle noći, a navečer su ispunjavali upitnike o zadovoljenju i frustraciji potreba u životu i videoigrama, vremenu igranja na taj dan, ponašanjima unutar videoigara te upitnike koji su mjerili različite oblike dobrobiti. Podaci su analizirani putem višerazinskog strukturalnog modeliranja (MSEM) i proučavani su samo efekti unutar osoba. U modelima koji odgovaraju na prvi cilj istraživanja, dnevno zadovoljenje ($\beta=.59$, $p<.001$) i frustracija potreba ($\beta= -.40$, $p<.001$) u životu izvan videoigara pokazali su se jedinim značajnim prediktorima dnevnog zadovoljstva



životom. U modelima s ponašanjima unutar videoigara, natjecanje je bilo pozitivno povezano s dnevnim doživljenim pozitivnim afektom ($\beta=.21$, $p<.001$) i vitalnosti ($\beta=.15$, $p<.05$), a toksično ponašanje s dnevnim doživljenim negativnim afektom ($\beta=.12$, $p<.05$). Pomalo neočekivano, pomaganje drugim igračima bilo je pozitivno povezano s dnevnim glavoboljama ($\beta=.12$, $p<.01$), a pričanje o temama nevezanim uz igru negativno povezano sa subjektivnom kvalitetom spavanja ($\beta= -.13$, $p<.01$), iako su efekti bili mali. Dobiveni rezultati ukazuju na važnost povećanja zadovoljenja i smanjenja frustracije potreba u životu izvan videoigara za zadovoljstvo životom adolescentskih igrača videoigara. Izlaganje će sadržavati raspravu o doprinosima pojedinih ponašanja unutar igre dnevnoj dobrobiti.

Ključne reči: adolescenti, dobrobit, videoigre, dnevnička studija

The well-being of adolescent video game players: a daily diary study

Adolescents are less conscientious and more impulsive than adults and they are going through a period of intensive development. Some of them spend a lot of time playing video games. Researchers, parents and policy makers are rightfully curious about the effects of video games on the well-being of adolescents. The daily diary methodology allows to reduce the retrospective bias and to investigate the within person relationships, but it was rarely used in gaming research. The aim of this study was to examine the relationships between satisfaction and frustration of daily psychological needs in real life and in video games, gaming time and life satisfaction of adolescent gamers. The secondary aim was to investigate the daily behaviours within video games and their relationship to well-being. The study was conducted in Croatia on $N=125$ (Mage = 17.28, 92% boys) adolescents who were high-school students and played video games daily. The participants took part in the study via an app Expi Well. First, they filled in the baseline questionnaire. Starting from next day, for eight consecutive days in the morning they answered questions about their sleep quantity and quality. In the evening, they filled in questionnaires about their real-life and in-game need satisfaction and frustration, gaming time on that day, behaviours within video games and questionnaires that measured different forms of well-being. The data were analysed via multilevel structural equation modelling (MSEM) and only within person effects were considered. In models that addressed the first study aim, the satisfaction ($\beta=.59$, $p<.001$) and frustration ($\beta= -.40$, $p<.001$) of real-life needs were the only significant predictors of life satisfaction. In models that used video game behaviours as predictors, competition was positively related to daily positive affect ($\beta=.21$, $p<.001$) and to vitality ($\beta=.15$, $p<.05$), and toxic behaviour was positively related to daily negative affect ($\beta=.12$, $p<.05$). Somewhat unexpectedly, helping other players was positively related to daily headaches ($\beta=.12$, $p<.01$), and communicating about topics not related to video games was negatively related to daily subjective sleep quality ($\beta= -.13$, $p<.01$), although the effects were small. The results point to the importance of increasing real-life need satisfaction and



decreasing real-life need frustration for the life satisfaction of adolescent video gamers. The presentation will include a discussion about the contribution of video game behaviours to well-being.

Keywords: adolescents, well-being, video games, daily diary study



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Umeće osećanja u Meta svetu: Manifestacija socio-emocionalnih kompetenci adolescenata na društvenoj mreži Instagram

Socio-emocionalne (SE) kompetencije se navode kao značajni činioci uspeha u obrazovnom kontekstu, životu i negovanju mentalnog zdravlja. CASEL teorijski okvir, korišćen u ovom radu, izdvaja pet SE kompetencija: svest o sebi, upravljanje sobom, socijalnu svesnost, veštine formiranja i održavanja odnosa i odgovorno donošenje odluka. Sa sve većom prisutnošću digitalnih tehnologija u svakodnevici ljudi, otvara se pitanje načina na koji se SE kompetencije razvijaju i ispoljavaju u onlajn naspram oflajn konteksta. Ovo pitanje je naročito relevantno u periodu adolescencije zbog razvojnog potencijala ovog perioda za razvoj SE kompetencija, ali i zbog mere u kojoj su mladi prisutni u onlajn svetu. Prema mnogim istraživanjima, adolescenti su u najvećoj meri prisutni u onlajn prostoru kroz učešće u društvenim mrežama. Stoga, ovo istraživanje teži da doprinese razumevanju načina na koji adolescenti različitih nivoa razvijenosti SE kompetencija koriste iste na društvenoj mreži Instagram, kao i mapiranju razlika koje postoje u ispoljavanju SE kompetencija u onlajn i oflajn kontekstu. U istraživanju je primenjen mešoviti metodski dizajn. U prvoj fazi istraživanja učestvovalo je 107 adolescenata kroz popunjavanje upitnika za samoprocenu SE kompetencija u oflajn okruženju („SE Learning Scale“, $\alpha=0,9$). Na osnovu rezultata, izdvojeno je deset učesnika koji su ostvarili najniže (ispitanici NSEK) i najviše skorove (ispitanici VSEK) na skali, a zatim su pozvani na učešće u daljem istražovanju. Drugi deo istraživanja je obuhvatio polustrukturirane intervjuje. Analizi se pristupilo iz fenomenološke epistemološke pozicije, metodom interpretativne fenomenološke analize. Nalazi istraživanja svedoče o važnosti Instagrama u svakodnevnom životu svih mladih, pri čemu se ističu sazajna, socijalna i uloga rasonode. Nalazi ukazuju da su se specifičnosti manifestovanja SE kompetencija u onlajn kontekstu uglavnom odražavale kroz doživljaje uspostavljanja kontrole nad načinom upotrebe Instagrama i nad sopstvenim ponašanjem u okviru socijalnih interakcija u onlajn kontekstu, kao i kroz doživljaje o pronalaženju načina za primenom znanja iz oflajn sveta u onlajn kontekstu, te su u ovim aspektima uočene najznačajnije razlike u doživljajima ispitanika VSEK i NSEK. Uočene sličnosti između ispitanika VSEK i NSEK odnosile su se na doživljaje onlajn prostora kao



manje podsticajnog za doživljavanje i iskazivanje emocija, kao i kroz poteškoće prepoznavanja onlajn prostora kao zasebnog društvenog sistema sa sopstvenim pravilima. Nalazi istraživanja ukazuju da postoji potreba za daljim istraživanjem uloge koju SE kompetencije imaju u onlajn kontekstu, odnosno u načinu na koji se u onlajn kontekstu grade identiteti i odnosi, upravlja emocijama, prepoznaju i preispituju norme i donose odluke. Praktične preporuke se odnose na razvoj obrazovnih praksi u koje mogu podržati razvoj SE kompetencija mladih i omogućiti im uspostavljanje kontrole nad sopstvenim iskustvom na društvenim mrežama.

Ključne reči: socio-emocionalne kompetencije, adolescencija, Instagram, društvene mreže, onlajn kontekst

The ability to feel in the Meta world: Manifestation of social-emotional competencies of adolescents on the social network Instagram

Social-emotional (SE) competencies are considered important factors in achieving success in education, later life, and mental health nurture. The CASEL framework used in this research points out five SE competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Living in a world in which digital technologies are an essential part of everyday life, a question arises regarding the development and manifestation of SE competencies online, in contrast to the offline context. This question is particularly important for the period of adolescence, both for the developmental potential of adolescence for the development of SE competencies and the presence of digital technologies in the lives of the youth. According to other research papers, adolescents are most present online through social media. Therefore, this paper aspires to contribute to understanding ways in which adolescents, with SE competencies developed to different levels, use them on Instagram, as well as to map the differences in manifestation of SE competencies online and offline. This research was conducted in a mixed-method design. In the first research phase, 107 participants filled out a self-assessment questionnaire on the development of SE competencies in the offline context (“Social-Emotional Learning Scale”, $\alpha=0.9$). Based on the results, ten subjects were singled out (five with the lowest (LSEC) and highest scores (HSEC) on the scale) and invited for the second research phase. This phase consisted of semi-structured interviews. The data was analyzed from the phenomenological epistemological position, using the interpretative phenomenological analysis (IPA) method. Results report the significant informative, social, and leisure roles of Instagram in the lives of youth. Results also suggest that subjects reported the specificity of manifestation of SE competencies online through experiences of establishing control over the way they use Instagram and their behavior in online social interactions, as well as through experiences of finding ways to apply knowledge from the offline context to the online one. In these aspects, the main differences between



experiences of subjects LSEC and HSEC were recorded. Shared experiences of subjects LSEC and HSEC were of online context as less stimulating for experiencing and expressing emotions. Experiences of both groups report of difficulty in recognizing social media as a social system with its social norms. The findings of this paper indicate the need for further exploration of the way SE competencies are used in the online context. Practical recommendations refer to the development of education policies that support the development of SE competencies among the youth, to empower the youth to gain control over their own experience on social media.

Keywords: social-emotional competencies, adolescence, Instagram, social media, online context



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Prediktori načina korišćenja ChatGPT-a kod akademskih radika iz Srbije - preliminarna studija

ChatGPT, veštačka inteligencija sposobna da vodi razgovore na prirodnom jeziku, pojavila se kao novi alat u različitim oblastima, uključujući akademsku sferu. Razumevanje stavova akademskih radnika i obrasca korišćenja ChatGPT-a je od velikog značaja u istraživanju njegovog potencijala u akademskom okruženju. Iako ChatGPT pruža brojne praktične prednosti, pojavila se zabrinutost u vezi sa mogućim zloupotrebama kao što su plagijarizam i ghostwriting. Cilj ovog istraživanja bio je ispitivanje upoznatosti akademskih radnika u Srbiji sa ChatGPT-om i identifikacija prediktora iz domena ličnosti koji mogu predvideti da li će ovaj alat biti korišćen kao resurs za unapređenje akademskih veština ili kao sredstvo za akademsku nepoštenost. Uzorak je obuhvatio 296 akademskih radnika iz različitih akademskih institucija u Srbiji. Nakon isključivanja učesnika koji nisu prošli proveru pažnje, kao i onih koji nisu nikada čuli za ili koristili ChatGPT, uzorak se sastojao od 104 ispitanika (59,6% ženskog pola) prosečne starosti 36,63 godina ($SD = 10,83$). Korišćeni su sledeći instrumenti: Kratki inventar HEXACO modela ličnosti (BHI-24) (α vrednosti od .302 do .561), i upitnici konstruisani u za potrebe ovog istraživanja: stavovi prema ChatGPT-u (pozitivni, $\alpha = 0.912$; negativni, $\alpha = .867$), sklonost ka konstruktivnom ($\alpha = .921$) ili akademski nepoštenom ($\alpha = .896$) korišćenju ChatGPT-a, kao i sociodemografski upitnik. Podaci su prikupljeni putem platforme Google Forms. Sprovedene su dve hijerarhijske regresione analize, pri čemu su sklonost ka konstruktivnom korišćenju ChatGPT-a u akademskom kontekstu (SKK) i sklonost ka korišćenju ChatGPT-a za akademsku nepoštenost (SAN) postavljene kao kriterijumske varijable. U oba slučaja, prvi blok je sadržao varijablu starost, drugi blok osobine ličnosti prema HEXACO modelu, a treći blok stavove prema ChatGPT-u. Za SKK ($F(9) = 3.653$; $p = .009$; $R = .450$; $R^2 = .203$), značajni prediktori u



finalnom modelu bili su savesnost ($\beta = .218$; $p = .029$), emocionalnost ($\beta = .206$; $p = .045$), iskrenost/skromnost ($\beta = -.220$; $p = .035$) i pozitivni stavovi prema ChatGPT-u ($\beta = .275$; $p = .017$). Kada je reč o drugoj kriterijumskoj varijabli, SAN ($F(9) = 3.048$, $p = .003$, $R = .475$; $R^2 = .226$), kao jedini značajni prediktor, u finalnom modelu, izdvojila se varijabla iskrenost/skromnost ($\beta = -.386$; $p = .000$). Ovi rezultati su u skladu sa ranijim nalazima u literaturi koji ukazuju na to da je iskrenost/skromnost stabilan korelat korišćenja tehnologije, ali je izostanak korelacija sa otvorenošću za iskustva bio donekle iznenađujuć. Savesnost takođe pokazuje pozitivnu korelaciju sa prihvatanjem tehnologije u prethodnim istraživanjima. Emocionalnost u prethodnim radovima sa prihvatanjem tehnologije ostvaruje drugačiju vezu nego u našem istraživanju, te je priroda ove veze diskutovana. Veza stavova prema ChatGPT-u i sklonosti u njegovom korišćenju je diskutovana.

Ključne reči: osobine ličnosti, stavovi prema ChatGPT-u, korišćenje ChatGPT-a, akademsko nepoštjenje

Zahvalnica: Ovu studiju je podržalo Ministarstvo prosvete, nauke i tehnološkog razvoja Republike Srbije (Ugovor br. 451-03-9/2021-14/200165).

Predictors of types of usage of ChatGPT among academic workers in Serbia - a preliminary study

ChatGPT, an artificial intelligence technology capable of engaging in natural language conversations, has emerged as a novel tool in various fields, including academia. Understanding the attitudes and usage patterns of academic workers towards ChatGPT is of great importance in exploring its potential within the academic setting. While ChatGPT offers numerous practical advantages, concerns have been raised regarding its potential misuse for academic misconduct such as plagiarism and ghostwriting. The objective of this study was to examine the familiarity of academic workers in Serbia with ChatGPT and identify predictors from the personality domain that can determine whether this tool will be used as a resource for academic improvement or as a means for academic misconduct. The sample included 296 academic professionals from different academic institutions in Serbia. After excluding participants who failed attention checks and those who had never heard of or used ChatGPT, the sample consisted of 104 respondents (59.6% female) with an average age of 36.63 years ($SD = 10.83$). The following instruments were used: the Brief HEXACO Personality Inventory (BHI-24) (α values from .302 to .561), and questionnaires constructed for the purposes of this research: attitudes towards ChatGPT (positive, $\alpha = .912$; negative, $\alpha = .867$), inclination towards constructive ($\alpha = .921$) or academically dishonest ($\alpha = .896$) usage of ChatGPT, as well as a sociodemographic questionnaire. Data were collected using Google Forms platform. Two hierarchical regression analyses were conducted, with inclination towards constructive usage of ChatGPT in an academic context (CU) and inclination towards using ChatGPT for academic dishonesty (UAD) set as criterion variables. In both cases, the first block included the variable of age, the second block comprised personality traits according to the HEXACO model, and the third block



consisted of attitudes towards ChatGPT. For CU ($F(9) = 3.653$; $p = .009$; $R = .450$; $R^2 = .203$), significant predictors in the final model were conscientiousness ($\beta = .218$; $p = .029$), emotionality ($\beta = .206$; $p = .045$), honesty/humility ($\beta = -.220$; $p = .035$), and positive attitudes towards ChatGPT ($\beta = .275$; $p = .017$). Regarding the second criterion variable, UAD ($F(9) = 3.048$, $p = .003$, $R = .475$, $R^2 = .226$), the only significant predictor in the final model was honesty/humility ($\beta = -.386$; $p = .000$). These results are consistent with previous findings in the literature indicating that honesty/humility is a stable correlate of technology usage, but the lack of correlation with openness to experience was somewhat surprising. Conscientiousness also shows a positive correlation with technology acceptance in previous research. Emotionality in previous works has a different relationship with technology acceptance than in our research, and the nature of this relationship is discussed. The link between attitudes towards ChatGPT and the inclination to use it was discussed.

Keywords: personality traits, attitudes towards ChatGPT, usage of ChatGPT, academic misconduct, constructive usage

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Reality TV and mental health of adolescents in Vojvodina

In the last two decades, research have focused on investigating effects of reality TV shows on attitudes and behaviors of young people regarding intimate and social relationships, body image etc. The main hypothesis was that reality TV shows represent aspects of “real” life and therefore viewer can have cathartic experiences, feeling of connectedness, identification, or social learning experience by watching them. However, the content of these shows can often trigger mental health issues and have a negative effect on viewers who estimate their own lives (body, identity, self...) with the persons on TV. Having in mind that adolescence represents sensitive developmental



period with questions about ones self and identity, this research has the aim to examine the effect of reality TV on mental health of adolescents. More precisely, whether there are differences in mental health indicators between adolescents who watch reality shows and those who do not. The sample consisted of 934 adolescents (61.3% female), aged 13 to 18 years (Mean=15.92, SD=1.67). The sample was divided into three groups: adolescents who often watch reality shows (N=91), adolescents who sometimes watch reality shows (N=425) and adolescents who never watch reality shows (N=418). The data were collected on the territory of Vojvodina in 2015. Participants completed the Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983), Rosenberg Self Esteem Scale (Rosenberg, 1965), Satisfaction with Life Scale (Diener, et al., 1985), The General Self-Efficacy Scale (Jerusalem & Schwarzer, 1981), Optimism and Pessimism Scale (Penezić, 2002), General Health Questionnaire (Goldberg, 1992).

Results of ANOVA show that there are significant differences between these three groups in perceived stress ($F(2,875)=8.60, p<.001, \eta^2=.02$); depression ($F(2,871)=4.17, p<.05, \eta^2=.01$); self-efficacy ($F(2,850)=5.17, p<.01, \eta^2=.01$), and pessimism ($F(2,852)=3.86, p<.05, \eta^2=.01$). Post hoc analysis shows that adolescents who often watch reality TV achieve statistically the highest scores on perceived stress, depression, and pessimism, then those who watch reality TV sometimes, and those who don't watch. Adolescents who don't watch reality TV achieve higher scores on self-efficacy than those who watch it sometimes. Having in mind small effect size of obtained results, relationship between watching reality tv and mental health needs to be further examined to answer questions as does watching reality TV contributes to poorer mental health of adolescents or do adolescents who have poorer mental health watch reality TV as a coping mechanism.

Keywords: reality TV, adolescence, mental health.



SOCIJALNA PSIHOLOGIJA

SOCIAL PSYCHOLOGY

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Attitudes of Men towards Parenthood and Paid Parental Leave

Numerous studies show the importance of a father's active participation in family activities after the birth of a child. Those activities are important not only for the well-being of a child, but also for the quality of parents' partnership and man's identity construction. Consequently, the conversation is progressively turning toward the possibilities and the need for a gender-balanced right to paid parental leave. National policies and practices address this topic diversely. Although Serbian legislation allows fathers to use paid parental leave, only a few decide to use this right. Therefore, this study aims to explore the attitudes of men towards parenthood in general, as well as their attitudes towards paid parental leave. The sample consisted of 223 men ($M=35.6$, $SD=10.5$) almost half of them are fathers (47.1%), mostly married or cohabitating (64.9%) and employed (69.6%). For the purpose of this study, the authors created a scale with 21 items that measure different aspects of the father's role and attitudes towards paid parental leave. Using exploratory factor analysis ($KMO=.81$; $\chi^2 = 1263.24$, $p < 0.01$) and relying on Scree plot, three dimensions were retained with 43.5% of the explained variance: moderate traditional attitudes (12 items, $M=2.19$; $\alpha=.81$), extreme traditional attitudes (3 items, $M=2.50$; $\alpha=.72$) and modern attitudes (6 items, $M=4.44$; $\alpha=.64$). Moderate traditional attitudes describe typical non-egalitarian partnership (father's instrumental and mother's expressive role), based on patriarchic values. Extreme traditional attitudes are also based on typical patriarchic values and roles, but go one step further, including items where paid parental leave is described as detrimental to the father, his masculinity. Modern attitudes include items that emphasize the importance of a father's involvement in raising a child and positive feelings about paid parental leave. Results show that there are no significant differences in attitudes between those that have children and those that don't. However, younger respondents (ages 19 to 25) and those between 36 and 40 years of age tend to have



significantly higher scores on moderate traditional attitudes ($F=5.52$, $p<.01$). Those differences can be explained by retraditionalization process, masculinity crisis, but also by bifurcation of the gender regime.

Keywords: men, parenthood, paid parental leave, traditional and modern attitudes, scale

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Does how we deal with daily stress as a couple matter? A dyadic diary study

Stress affects individual well-being but also intimate relationships, spilling over into them. It is related to a negative overall perception of the partner and the intimate relationship (Neff & Karney, 2009). While coping with stress can be done individually or with support from family and friends, the quality of intimate relationships is predominantly affected by the partner's reactions to perceived stress and by joint dyadic coping during mutual stress situations. In case of mutual stress, joint dyadic coping can be positive with both partners focusing to solve their problem or being responsive to each other's emotions. Joint dyadic coping can also be negative including criticism, dismissiveness, withdrawal, hostility, or ambivalence. Still, few studies have looked at the way daily stressors and joint dyadic coping strategies shape the relationship. This is not to be overlooked because partners' behaviors and reactions create the global perception of the partner and the relationship. The aim of this study was to test whether positive and negative joint dyadic coping moderates the impact of couples' daily stress on perceived relationship satisfaction. This dyadic diary study was conducted using a mobile application for a period of 14 days once a day from 19h to 24h to collect diary data from 120 cohabiting heterosexual couples. Couples were dating for at least two years and cohabiting for at least three months. 38.4% were married and 33.7% had children. All had at least a high school education, and 41.3% had graduated from university. The following questionnaires were used: Perceived Stress Scale (PSS-4; Cohen et al., 1983), Common Dyadic Coping subscale of the Inventory of dyadic coping (Bodenmann, 2008), and the Couples Satisfaction Index (Funk & Rogge, 2007). 2-level multilevel regression modelling was used with maximum likelihood estimation. A random intercept and a covariation between partner's level-2 and level-1 error terms were estimated. Our results showed a significant negative association between perceived daily stress and relationship satisfaction and indicated a moderating role of both positive and negative joint dyadic coping strategies on the association between



daily stress and relationship satisfaction. This study provides a more in-depth understanding of the interaction of daily stress, partners' behavior, and relationship assessment.

Keywords: dyadic diary study, relationship satisfaction, joint dyadic coping, stress



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“Drug je za druga”- Asertivne namere učenika prema učenicima sa invaliditetom

Socijalna isključenost i zadirkivanje dece u školi može ozbiljno uticati na zdravlje i blagostanje, kao i na njihovu percepciju međugrupnih odnosa. Ovakva ponašanja motivisana su međugrupnim razlikama i rezultat su predrasuda prema stigmatizovanim grupama. Najčešći oblik maltretiranja je međugrupno prozivanje koje ističe međugrupne razlike. Preuzimanje asertivne uloge posmatrača smatra se efikasnom strategijom u borbi protiv međugrupnog uznemiravanja. Može li namera učenika da uspostave kontakt sa decom sa invaliditetom uticati na njihove namere da reaguju na društvenu isključenost i provociranje koje je usmereno na dete sa invaliditetom? Prepostavili smo da zauzimanje perspektive ima značajnu ulogu u ovom odnosu jer omogućava da se razume iskustvo koje drugo dete doživljava. Ispitali smo odnos između namere uspostavljanja kontakta i asertivnog ponašanja kao odgovor na zadirkivanje u kontekstu interakcija sa učenicima sa invaliditetom kod 259 učenika (144 dečaka i 134 devojčice) uzrasta od 8-11 godina ($M=9,72$, $SD=.954$) koji pohađaju osnovne škole na severu Kosova i Metohije. Zamolili smo decu bez invaliditeta da zamisle da je dete sa invaliditetom sa kojim su se tek upoznali izloženo prozivanju i odgovore kako bi reagovali u toj situaciji. Učesnici su odgovarali na pitanja o nameri da stupe u kontakt sa decom sa invaliditetom, zauzimanju perspektive deteta sa invaliditetom, kao i nameri ponašanja i pomoći u situaciji kada je dete sa invaliditetom žrtva zadirkivanja od strane drugog deteta. Rezultati pokazuju da ne postoji statistički značajna razlika između dečaka i devojčica u asertivnim namerama ponašanja, kao ni statistički značajna razlika među asertivnim posmatračima različitog uzrasta. Da bismo ispitali odnos ponašanja i pomoći prema deci sa invaliditetom, sprovedi smo analizu medijacije sa zauzimanjem perspektive kao potencijalnim medijatorom u ovom modelu. Direktan uticaj namere ponašanja (kontakta) na asertivne namere nije bio statistički značajan ($b=.0685$, $p=.1129$). Namera kontakta imala je značajan uticaj na zauzimanje perspektive ($b=.2288$, $p<.001$). Utvrđena je medijatorska uloga zauzimanja perspektive u odnosu između namere ostvarivanja kontakta i reakcije na prozivanje. Rezultati su otkrili značajan indirektni efekat ($b=.0638$,



$p < .001$). Odnos između namere kontakta i reakcije na prozivanje se u potpunosti može objasniti zauzimanjem perspektive drugog deteta, odnosno razumevanjem onoga šta dete sa invaliditetom proživljava. Dobijeni rezultati će biti razmatrani u smislu implikacija na budući rad sa osetljivim grupama i u cilju poboljšanja odnosa prema vršnjacima sa invaliditetom kao i za razvoj školskih interventnih programa.

Ključne reči: učenici sa invaliditetom, namera uspostavljanja kontakta, namera pomoći, zauzimanje perspektive, socijalna iskuljenost

"A friend is for a friend" - Assertive intentions of students toward students with disabilities

Social exclusion and teasing of children at school can seriously affect their health and well-being, as well as their perception of intergroup relations. Such behaviors are motivated by intergroup differences and are the result of prejudice against stigmatized groups. The most common form of bullying is intergroup name-calling which highlights intergroup differences. Taking an assertive bystander role is considered an effective strategy in the fight against intergroup harassment. Can students' intention to establish contact with children with disabilities affect their intentions to respond to social exclusion and provocation directed at a child with disabilities? We hypothesized that perspective-taking plays a significant role in this relationship because it allows one to understand another child's experience. We examined the relationship between intention to make contact and assertive behavior in response to provocation in the context of interactions with students with disabilities in 259 students (144 boys and 134 girls) aged 8-11 years ($M=9.72$, $SD=.954$) who attend elementary schools in the north of Kosovo and Metohija. We asked non-disabled children to imagine that a disabled child they had just met was subjected to name-calling and to answer how they would react in that situation. Participants answered questions about the intention to come into contact with children with disabilities, taking the perspective of a child with disabilities, as well as the intention to behave and help when a child with disabilities is the victim of provocation by another child. The results show that there is no statistically significant difference between boys and girls in assertive behavioral intentions, nor is there a statistically significant difference between assertive observers of different ages. To examine the relationship between behavior and helping children with disabilities, we conducted a mediation analysis with perspective-taking as a potential mediator in this model. The direct influence of behavioral intention (contact) on assertive intentions was not statistically significant ($b=.0685$, $p=.1129$). Contact intention had a significant effect on perspective taking ($b=.2288$, $p<.001$). The mediating role of perspective-taking in the relationship between the intention to make contact and the reaction to name-calling was determined. The results revealed a significant indirect effect ($b=.0638$, $p<.001$). The relationship between the intention of contact and the reaction to name-calling can be fully explained by taking the perspective of another child, that is, by understanding what



a child with a disability experience. The obtained results will be discussed in terms of implications for future work with vulnerable groups and with the aim of improving relations with peers with disabilities as well as the development of school intervention programs.

Keywords: students with disabilities, contact intentions, helping intentions, perspective-taking, social exclusion



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How to Geek? Identity and Status of Geeks in Croatia

According to Western literature, geeks are present in society for the past decades, but their representation has changed significantly. From stereotypical outcasts to lovable experts in their obscure areas of interest, geeks have become ever more popular, with positive media impact being a big part of that social change. Although the work in this area provides important insights into a range of defining characteristics of geek culture, the role of self-categorization and adjacent social identity processes and phenomena has received much less scrutiny. There is no such research on geeks in Croatia, so we decided to conduct a qualitative study to find out what does it mean to be a geek and if is there even a geek culture in Croatia? With the social identity approach as a theoretical background, our research questions were: (1) How do our participants describe a geek prototype in Croatia? (2) How do they describe relations between different geek subgroups? (3) How do they perceive their status and describe relations between geeks and the outgroup?

We conducted two online synchronous focus groups using the web-based conferencing tool WebEx™. Participants were recruited via email and based on personal connections and recommendations of other geeks (those with active participation in traditionally understood geek activities). Out of 13 sent invitations, 9 participants confirmed their participation and we conducted two focus groups on May 19th and 20th 2020. The same person moderated both focus groups with a duration of approximately 90 minutes on both occasions. Transcripts were imported into the software NVivo 12 where we conducted descriptive thematic analysis.

Our results corroborated that active involvement, creative efforts, and expertise in some areas of interest are key characteristics of geeks. However, it is not negligible which areas of expertise are in question. Namely, typical geek activities were fantasy, SF, attending conventions, LARP, cosplay, comic books, computer and console games, and tabletop RPG. Interestingly, the geek community is very segmented and geeks are more prone to self-categorize themselves in terms of their subgroups, while their geek



identity becomes evident mainly at conventions and alike gatherings. However, they do not like to label themselves or others and that is evident in permeable subgroup boundaries. Relations between different geek subgroups are mostly amicable and most of them involve in more than one geek activity, but they have their primary interest(s). Geek status in society has improved in recent years due to media influence but our participants clearly distinguish those who are passive consumers of geek interests (outgroup members) and those who are active creators (ingroup members). The outgroup is not clearly defined nor homogenized and there is no need for intergroup comparison. Further in the presentation, we will discuss geek identification and status from the social identity approach.

Keywords: geeks, identification, focus groups



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Efekti interpersonalnih ciljeva adolescenata na zadovoljstvo životom i na zadovoljstvo pripadnošću odeljenju

Odnos sa vršnjacima i prihvaćenost u školskom odeljenju utiču na opšte funkcionisanje mladih. Pitanje je kako interpersonalni ciljevi adolescenata određuju zadovoljstvo članstvom u odeljenju i zadovoljstva životom. Prigodan uzorak je činilo ukupno 229 učenika (70% devojaka) srednjih škola iz Subotice (36%) i Novog Sada (64%). Uзраст ispitanika kretao se u opsegu od 16 do 18 godina ($M = 16.66$, $SD = .64$). Podaci su prikupljeni pomoću Inventara interpersonalnih ciljeva za decu (Interpersonal Goal Inventory for Children – IGI-C-R), subskele Članstvo iz Skale kolektivnog samopoštovanja (Collective Self-esteem Scale - CSES) i Skale zadovoljstva životom (The Satisfaction With Life Scale – SWLS). Sve skale su imale odgovarajuću pouzdanost ($\alpha > 0.70$). Višestrukom regresionom analizom utvrđena je statistička značajnost modela po kom interpersonalni ciljevi imaju efekat na zadovoljstvo životom (korigovano $R^2=0.07$, $F(4, 232)= 5.47$, $p < .01$). Značajne efekte na zadovoljstvo životom imali su ciljevi separacije ($\beta = -.184$, $p < .01$), zajedništva ($\beta = .18$, $p < .05$) i delotvornosti ($\beta = .14$, $p < .05$). Mladi koji u interpersonalnim odnosima teže zajednici i delotvornosti zadovoljniji su životom dok su životom nezadovoljniji oni kojima je važna separacija. Istom metodom potvrđen je i model po kom interpersonalni ciljevi imaju efekat na zadovoljstvo članstvom u odeljenju (korigovano $R^2 = .07$, $F(4, 232) = 5.44$, $p < .01$). Značajne efekte imali su ciljevi zajedništvo ($\beta = .23$, $p < .01$) i separacija ($\beta = -.14$, $p < .05$) dok je cilj delotvornosti bio marginalno značajan ($\beta = 0.12$, $p < .08$). Pearsonova korelacija između zadovoljstva članstvom u odeljenju i zadovoljstva životom je statistički značajna ($r = .35$, $p < .01$). Nalazi pokazuju da



je za zadovoljstvo životom kao i za zadovoljstvo pripadanjem odeljenju adolescenata važno da su u interpersonalnim odnosima usmereni ka zajedništvu ili delotvornosti.

Ključne reči: interpersonalni ciljevi, pripadnost u odeljenju, zadovoljstvo životom, adolescenti

Effects of Adolescents' Interpersonal Goals on the Life and Classroom Membership Satisfaction

The relationship with peers and acceptance within the school class positively affects the overall functioning of the youth. The aim of the study was to explore how adolescents' interpersonal goals determine satisfaction with class membership and life satisfaction. The convenient sample consisted of 229 high school students (70% females) from Subotica (36.3%) and Novi Sad (63.7%). The age of the respondents ranged from 16 to 18 years ($M = 16.66$, $SD = .64$). Data were collected using the Interpersonal Goal Inventory for Children (IGI-C-R), the Membership subscale from the Collective Self-esteem Scale (CSES), and the Satisfaction with Life Scale (SWLS). Scales had adequate reliability (α C above 0.70). Multiple regression analysis revealed that the interpersonal goals have an effect on life satisfaction fit the data (adjusted $R^2 = 0.07$, $F(4, 232) = 5.47$, $p < .01$). Significant effects on life satisfaction were found for the separation ($\beta = -.18$, $p < .01$), the communal ($\beta = .18$, $p < .05$), and the agentic goals ($\beta = .14$, $p < .05$). Respondents who prioritize communal and agentic interpersonal goals reported higher, while those who prioritize separation reported lower life satisfaction. Furthermore, multiple regression analysis showed that interpersonal goals predict class membership satisfaction (adjusted $R^2 = .07$, $F(4, 232) = 5.44$, $p < .01$). The communal goal had a significant positive effect ($\beta = .23$, $p < .01$), the separation goal had a negative effect ($\beta = -.14$, $p < .05$), and the agentic goal had a marginally positive significant effect ($\beta = .12$, $p < .08$) on the membership satisfaction. Pearson correlation between class membership satisfaction and life satisfaction was statistically significant ($r = .35$, $p < .01$). The study shows that in order to experience life or class membership satisfaction during adolescence, it is important to have communal or agentic interpersonal goals.

Keywords: interpersonal goals, classroom membership, life satisfaction, adolescents



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Attachment, commitment, and sexting among young adult women in romantic relationships

Hirschi's (1969) social control theory focuses on the importance of social bonding or attachment as the most important factor in explaining deviant behavior. However, there are few studies examining attachment as a predictor of sexting behavior. The purpose of this study (funded by HRZZ, grant number 3553) was to examine the relationship between attachment and sending sexts in romantic relationships and how commitment to the relationship moderates that relationship. A total of 574 women aged 18-29 years ($M=20.817$; $SD=2.267$) who were in an intimate relationship online completed self-report measures on attachment, sending sexts, and level of commitment. Results showed that avoidance attachment had a direct negative effect ($B = -.150$; $p=.000$), whereas anxiety attachment ($B = .103$; $p=.012$) had a direct positive effect on sending sexts. In addition, avoidance attachment ($B = -.091$; $p=.035$), had a significant indirect negative effect on sending sexts through commitment, and a positive interaction effect was found between commitment and anxiety attachment ($B = .138$; $p=.001$) on sending sexts. These results suggest that both attachment styles and commitment are important factors in understanding sexting behavior in romantic relationships. Avoidance attachment may be a barrier to sexting behavior, whereas anxiety attachment may facilitate it. Commitment might attenuate the relationship between avoidance attachment and sexting, whereas it might enhance the relationship between anxiety attachment and sexting. These findings have important implications for understanding the psychological mechanisms underlying sexting behavior in romantic relationships.

Keywords: sexting, attachment, commitment, relationship, young adults

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Some determinants of relationship satisfaction in people with physical disability

People with physical disabilities face many challenges with regard to every aspect of life, including romantic relationships. Given the importance of romantic relationships for personal well-being and a general lack of studies of relationship satisfaction in people with physical disability, the aim of this study is to examine its determinants. We drew upon Vulnerability-Stress-Adaptation (VSA) model, which assumes that individual vulnerabilities, stress, and couple communication account for differences in relationship satisfaction. We aimed to examine the effects of different factors, pertaining to personal vulnerability, stress or partner communication. The research was conducted online, and the form for completion was forwarded to numerous associations for people with physical disabilities in the Republic of Croatia. The sample consisted of 101 participants. Participants completed measures of sociodemographic data, subjective and objective severity of disability, Big Five Inventory-2-S (Soto and John, 2017)), Acceptance of Disability Scale (Li and Moore, 1998), Perceived Stigma (Brown, 2014), Sexual Esteem and Sexual Depression (Snell and Papini, 1989), Dyadic Coping Inventory (Bodenmann et al., 2018), and Relationship Satisfaction Scale (Røysamb, Vittersø and Tambs, 2014). The results of the Hierarchical regression analysis have shown that younger age, higher acceptance of disability, lower sexual depression and higher dyadic coping predicted greater relationship satisfaction. In addition, sexual depression was a mediator for the positive relation between acceptance of disability and relationship satisfaction, while dyadic coping proved to be a mediator in the negative relation between age and sexual depression, and relationship satisfaction. Apart from their theoretical and heuristic value, these results offer useful information to be used in empowering and supporting people with physical disability in obtaining and sustaining satisfactory and meaningful romantic relationships.

Keywords: relationship satisfaction, physical disability, sexual depression, dyadic coping



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Navigating the Complexity of Mental Health Diagnosis: Modelling Theoretical Issues with Neuromarkers

For the past two decades, extensive brain imaging research has been conducted with the goal of discovering biomarkers that can provide objective diagnoses for depression and other mental health conditions based on neural activity (from here on: neuromarkers). Although sporadic scientific reports have claimed high predictive accuracy, none of these neuromarkers have proven to be clinically useful. This lack of success can be attributed to various methodological issues, such as low statistical power and selective reporting, leading to a lack of replicability in this field of research. However, theoretical issues related to the concept of biological reductionism also significantly contribute to this challenge.

This study challenges biological reductionism, which underlies the conviction that an objective diagnostic tool in the form of a neuromarkers is possible and desirable. The first challenge to this notion that motivated the study is multiple realizability, which posits that mental states can be realized through various different physical states. The primary objective here is to translate theoretical concerns into models that illustrate how different approaches to multiple realizability impact the accuracy of neuromarkers, integrating the idea with the notion of emergence. Additionally, the study explores how general and immediate environmental factors may hinder the identification of neuromarkers. These models shed light on the possibility of a fundamental limitation on the accuracy of neuromarkers for mental health conditions.

The methodology involved translating and comparing models through data simulation. Subsequently, a classifier for diagnosis was trained using the simulated data. This process aimed to exemplify a way of modelling important theoretical notions in neuromarker research. With this we hope to facilitate the use of important theoretical considerations in practical research. This study highlights the need for critical evaluation of the plausibility of neuromarkers and identification of relevant factors contributing to the limitations of the predictive power of neuromarkers. Ultimately, this research can deepen our understanding of the potential clinical utility of neuromarkers and guide future investigations in this field.

Keywords: diagnostics, biomarkers, multiple realizability, emergence, theory modelling, mental health

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Razlike u doživljaju boli između osoba s kroničnom glavoboljom i kroničnom križoboljom

Bol je neugodno senzorno i emocionalno iskustvo povezano s aktualnim ili potencijalnim oštećenjem tkiva. Kronična bol opisuje se kao kontinuirana bol koja traje dulje od tri mjeseca kontinuirano ili se perpetuira u određenim vremenskim razmacima te je otporna na terapiju. Često se opisuje kao tupa bol bez oštre lokalizacije, a najučestalija je pri glavoboljama, bolovima u leđima, bolovima u osoba s artritisom, karcinomom i slično.

Cilj ovog istraživanja bio je ispitati razlike u doživljaju boli između bolesnika s kroničnom glavoboljom i bolesnika s kroničnom križoboljom. Istraživanje je provedeno na prigodnom uzorku od $N = 223$, od čega je 178 žena i 45 muškaraca u rasponu dobi od 18 do 91 godinu ($M=42,10$ godine, $SD=12,99$) iz opće odrasle populacije. Od toga je u skupini s glavoboljom bio 131 sudionik te u skupini s križoboljom 92 sudionika. Prosječno trajanje kronične glavobolje je bilo 12,68 godina ($SD=10,70$), dok je prosječno trajanje kronične križobolje bilo 7,26 godina ($SD=7,03$).

Podaci su prikupljeni putem online upitnika pri čemu je doživljaj boli mjereno VAS skalom za procjenu intenziteta boli od 0-10 te McGill-ovim upitnikom o boli koji mjeri doživljaj senzorne i afektivne boli. Kako bi se utvrdilo postoji li razlika u doživljaju boli između pacijenata s kroničnom glavoboljom te kroničnom križoboljom proveden je t-test za nezavisne uzorke. Utvrđeno je da postoji statistički značajna razlika u doživljaju boli između pacijenata s kroničnom glavoboljom i kroničnom križoboljom pri čemu je skupina s glavoboljom imala veći intenzitet boli ($M=6,77$; $SD=1,95$) u odnosu na skupinu sa križoboljom ($M=5,10$; $SD=2,08$) također i veći senzorni i afektivni doživljaj boli.

Rezultati ukazuju na važnost informacija o subjektivnom doživljaju različitih vrsta kroničnih bolova kako bi se tretmani mogli prilagoditi potrebama bolesnika i vrsti bolova.

Ključne reči: kronična bol, glavobolja, križobolja, doživljaj boli

Differences in the experience of pain between people with chronic headache and chronic low back pain

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. Chronic pain is described as pain that lasts longer than three months continuously or is perpetuated at certain time intervals and is resistant to therapy. It is often described as a dull pain without a sharp localization, and it is most common in headaches, back pain, pain in people with arthritis, cancer and the like.



The aim of this study was to examine the differences in pain perception between patients with chronic headache and patients with chronic low back pain. The research was conducted on a convenience sample from the general adult population. $N = 223$, of which 178 were women and 45 were men in the age range from 18 to 91 years ($M=42.10$ years, $SD=12.99$). Of these, there were 131 participants in the group with headache and 92 participants in the group with low back pain. The average duration of chronic headache was 12.68 years ($SD=10.70$), while the average duration of chronic low back pain was 7.26 years ($SD=7.03$).

The data was collected through an online questionnaire, where the pain intensity was measured by the VAS scale for assessing pain intensity from 0-10 and pain experience by the McGill pain questionnaire, which measures the experience of sensory and affective pain. In order to determine whether there is a difference in the experience of pain between patients with chronic headache and chronic low back pain, a t-test for independent samples was performed. It was found that there is a statistically significant difference in the experience of pain between patients with chronic headache and chronic low back pain, whereby the group with headache had a more intense pain ($M=6.77$; $SD=1.95$) compared to the group with low back pain ($M=5.10$; $SD=2.08$), and higher sensory and affective pain intensity as well.

The results indicate the importance of information about the subjective experience of different types of chronic pain so that treatments can be adapted to the needs of the patient and the type of pain.

Keywords: chronic pain, headache, low back pain, pain experience



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Does eye-closure during testimony increase accuracy of recall?

Eyewitness memory is not perfect. Its accuracy is subject to various personal and situational factors, such as absent-mindedness, blocking, bias, misattribution, persistence, suggestibility, and transience (Schacter, 1999). Some studies suggest that closing the eyes during testimony may prevent some of these errors and thus increase recall accuracy (see Vredeveldt, 2011). Given that information obtained from witnesses is often critical in police investigations, instruction that could improve eyewitnesses recall could contribute to a more credible reconstruction of the event. This study



examined whether eye closure would increase the accuracy of eyewitness's testimony across the contexts (violent vs. nonviolent events, central vs. peripheral information).

The study was conducted online. Two groups of participants (38 in each group, 20 to 29 years-of-age) were each individually shown a 6-minute video with violent or nonviolent content; the participants were collected in a snowball fashion and distributed randomly across the experimental groups. The video was previously unknown to all the participants. Recall followed immediately after the video presentation; the participants answered questions that included both central and peripheral parts of the story (e.g., What was the colour of the tent in the back?); the answers were open-ended rather than forced choice. Centrality, as well as the content of the questions were determined in independent pilot study prior to the main experiment. In the pilot study, a group of participants rated 58 questions for centrality and selected 24 for the main experiment. During the recall, half of the participants had their eyes open, and the other half closed. In both cases, the experimenter read the questions aloud; the time for answering was not limited. A mixed three-way design ANOVA was used to test the effects of eye closure and violent/non-violent content on recall of events that were either central or peripheral to the story. The dependent variable was the percentage of correct answers.

Participants were more likely to recall central than peripheral events, $F(1, 72) = 272.16, p < .001, \eta^2 = 0.79$. The main effects or interactions of eye-closure and violent/non-violent content were not significant. The data suggest that events that were central to the story were remembered more accurately than events that were peripheral to the story. On the other hand, no evidence was found that closing the eyes influenced recall, either for violent or nonviolent videos; contrary to our prediction (see Vredeveldt, 2011), closing the eyes did not increase or decrease the accuracy of eyewitness recall. Further studies are needed to test the problem in more detail.

Keywords: memory; recall; testimony; eye-closure



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The Dark Tetrad traits and prosocial behavior in adolescence

The Dark Tetrad traits (i.e., Machiavellianism, narcissism, psychopathy, and sadism) are considered callous, aversive, and negatively linked to prosocial behavior. However, the relations between prosocial behavior and specific traits from the Dark Tetrad constellation are not always negative, and some findings point to sex differences in these relations. Thus, the aim of this study was to investigate the relationship between the Dark Tetrad traits and prosocial behavior, as well as the potential sex differences in this relationship in a sample of adolescents. Data were collected within a larger ongoing



longitudinal research project and the results of its first wave are reported. The sample consisted of 1318 high school students (42% male, Mage = 16.34, SDage = 0.64) from Zagreb, Croatia. Prosocial behavior was assessed by 5 items from the Strengths and Difficulties Questionnaire ($\alpha = .67$), while Dark Tetrad traits were measured with The Short Dark Tetrad (α 's ranged from .71 to .83). At the level of bivariate relations, prosocial behavior was negatively associated with sadism ($r = -.28, p < .001$), psychopathy ($r = -.28, p < .001$), and Machiavellianism ($r = -.06, p = .032$), while regression analysis showed that sex and dark traits explained 9.9% of prosocial behavior variance ($R^2 = .099, F(5, 1312) = 128.74, p < .001$). Sadism was the strongest negative predictor ($\beta = -.21, p < .001$), followed by psychopathy ($\beta = -.10, p = .003$), and narcissism was a positive predictor of self-reported prosocial behavior ($\beta = .12, p < .001$), while male sex was negatively associated with prosocial behavior ($\beta = -.10, p < .001$). Step containing interactions of sex with each of the dark traits was not statistically significant ($\Delta R^2 = .005, F_{change}(4, 1308) = 1.72, p = .142$), indicating that sex did not have a moderating role in the relationship between Dark Tetrad traits and prosocial behavior in our sample. Taken together, the results point to the importance of sadism and psychopathy on one (negative) side, and narcissism on the other (positive) side in predicting self-reported prosocial behavior in adolescence, regardless of sex.

Keywords: Dark Tetrad, prosocial behavior, adolescence

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Profesionalna adaptabilnost učenika medicinskih škola

Profesionalna adaptabilnost centralni je konstrukt Teorije izgradnje karijere (Savickas i Porfeli, 2012). U promjenjivim uvjetima tržišta rada, ona postaje sve značajnija. Cilj rada bio je ispitati profesionalnu adaptabilnost učenika medicinskih škola pri kraju srednjoškolskog obrazovanja te provjeriti može li se njihova profesionalna adaptabilnost predvidjeti na osnovi osobina ličnosti, zadovoljstva odabranim srednjoškolskim zanimanjem i percepcije zahtjevnosti donošenja odluke o njihovoj profesionalnoj budućnosti. Sudjelovalo je 350 učenika, a korištene su hrvatske verzije skala CAAS (Šverko i Babarović, 2016) i IPIP- 20 (Andreis i sur., 2021). Profesionalna adaptabilnost učenika čija je profesionalna namjera nastaviti školovanje na fakultetima srodnima njihovom srednjoškolskom zanimanju statistički je značajno veća u odnosu na učenike koji imaju drugačije profesionalne namjere ($t(324)=3.88, p=.000, d=0.43$). Također su statistički su značajno zadovoljniji svojim srednjoškolskim zanimanjem

($t(324)=7.22$, $p=.000$, $d=0.81$) te percipiraju da im je lakše donijeti odluku o profesionalnoj budućnosti ($t(324)=5.55$, $p=.000$, $d=0.62$) u odnosu na učenike drugačijih profesionalnih namjera. Analizom varijance uspoređene su skupine učenika: koji namjeravaju odmah nakon srednje škole izaći na tržište rada, koji namjeravaju nastaviti obrazovanje izvan medicinskog područja te još neodlučnih. Učenici čija je profesionalna namjera odmah izaći na tržište rada iskazuju višu kontrolu za svoj karijerni put u odnosu na skupinu neodlučnih učenika ($F(2/173)=3.66$, $p=.003$, $\eta^2=0.04$). Imaju višu savjesnost od skupine učenika koji namjeravaju nastaviti školovanje izvan medicinskog područja ($F(2/173)=5.18$, $p=.000$, $\eta^2=0.05$). Emocionalna stabilnost im je viša ($F(2/173)=5.72$, $p=.000$, $\eta^2=0.06$), zadovoljniji su svojim srednjoškolskim zanimanjem ($F(2/173)=40.04$, $p=.000$, $\eta^2=0.32$) i lakšim percipiraju donošenje odluke o profesionalnoj budućnosti ($F(2/173)=45.02$, $p=.000$, $\eta^2=0.34$) u odnosu na ostale skupine. Regresijska analiza za kriterijsku varijablu profesionalna adaptabilnost pokazala je kako odabrani skup prediktora (osobine ličnosti, zadovoljstvo odabranim srednjoškolskim zanimanjem i percepcija zahtjevnosti donošenja odluke o profesionalnoj budućnosti) objašnjava 39% varijance ($R^2=0.39$, $F(7/342)=32.07$, $p=.000$). Savjesnost, Intelekt, zadovoljstvo odabranim srednjoškolskim zanimanjem i percepcija zahtjevnosti donošenja odluke o profesionalnoj budućnosti imaju statistički značajni samostalni doprinos, od kojih najveći ima varijabla Savjesnost ($\beta=0.39$, $p=.000$). Rezultati su dopuna boljem razumijevanju dosadašnjih spoznaja o profesionalnoj adaptabilnosti adolescenata u specifičnom kontekstu zdravstvenih zanimanja.

Ključne reči: profesionalna adaptabilnost, osobine ličnosti, adolescenti

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Professional adaptability of medical schools students

Professional adaptability is a central construct of the Career construction theory (Savickas and Porfeli, 2012). In the changing conditions of the labor market, it becomes more and more important. The aim of this study was to examine the professional adaptability of medical school students at the end of secondary education, and to check whether their professional adaptability can be predicted based on personality traits, satisfaction with the chosen secondary school profession and the perception of the demands of decisions about their professional future. 350 students participated, and the Croatian versions of the CAAS scale (Šverko and Babarović, 2016) and the IPIP-20 (Andreis et al., 2021) were used. The professional adaptability of students whose professional intention is to continue their education at faculties related to their high school occupation is statistically significantly higher compared to students who have different professional intentions ($t(324)=3.88$, $p=.000$, $d=0.43$). They are also significantly more satisfied with their high school occupation ($t(324)=7.22$, $p=.000$,



$d=0.81$) and perceive that it is easier for them to make a decision about their professional future ($t(324)=5.55$, $p=.000$, $d=0.62$) compared to students with different professional intentions. Using variance analysis, we compared student groups: those who intend to enter the labor market immediately after high school, those who intend to continue their education outside the medical field, and those who are still undecided. Students who want to immediately enter the labor market show higher control over their career compared to the group of undecided students ($F(2/173)=3.66$, $p=.003$, $\eta^2=0.04$). They also show higher conscientiousness than the group of students who intend to continue their education outside the medical field ($F(2/173)=5.18$, $p=.000$, $\eta^2=0.05$). Higher in emotional stability ($F(2/173)=5.72$, $p=.000$, $\eta^2=0.06$), they are more satisfied with their high school occupation ($F(2/173)=40.04$, $p=.000$, $\eta^2=0.32$) and perceive making a decision about their professional future easier ($F(2/173)=45.02$, $p=.000$, $\eta^2=0.34$) compared to the other groups. Regression analysis for the criterion variable professional adaptability showed that the selected set of predictors (personality traits, satisfaction with the chosen high school occupation and perception of the difficulty of making a decision about the professional future) explained 39% of the variance ($R^2=0.39$, $F(7/342)=32.07$, $p=.000$). Conscientiousness, Intellect, satisfaction with the chosen high school profession and the perception of the difficulty of making a decision about the professional future have a statistically significant independent contribution, the largest of which is the variable Conscientiousness ($\beta=0.39$, $p=.000$). The results are a supplement to a better understanding of the previous knowledge about the professional adaptability of adolescents in the specific context of health professions.

Keywords: professional adaptability, personality traits, adolescents

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Associations between color and shape in terms of product design

Previous studies have shown that associations between color and shape characteristics (e.g., hue; curvature) are both stimulus and task-dependent. In this study, we aimed to further test these associations in the applied context of marketing. Our stimuli were pictures of products consisting of light grey packaging (a cube with either pointed or curved edges) with a colored label (pointed or curved, respectively) in its center. The



label was created in the form of an abstract shape, either more or less complex (30 or 11 protrusions). Label colors were selected from the Munsell color system: hues varied by temperature - four warm (5R, 7.5R, 10R, 2.5YR) and four cool (7.5B, 10B, 7.5PB, 20PB), presented in two levels of lightness ($V = 5,6$), and with constant saturation ($C = 10$). Based on the answers of 14 participants in a pilot study, we chose three types of products – one used mainly by women i.e., a feminine product (a jewelry box), one used mainly by men i.e., a masculine product (a box for nails and screws) and one equally used by both genders i.e., a neutral product (a vitamin box). The main experimental procedure consisted of a 2AFC task in which participants were presented with a pair of products that differed only in their pointedness. The task was to choose the preferred shape for a given label color as a design for the neutral (E1; $N = 37; 16m$), feminine (E2; $N = 35; 14m$), and masculine product (E3; $N = 39; 19m$). Repeated measures ANOVA showed that females chose pointed shapes more often in darker than in lighter colors, while males did not make such a difference ($F(1, 105) = 5.56, p = .02, \eta^2 = .05$). Males chose pointed shapes more often when they were more complex ($F(1, 105) = 4.99, p = .028, \eta^2 = .04$). A separate analysis by participants' gender gave us a more specific insight regarding their choices. Males chose complex pointed shapes more often than simple ones when choosing designs for the neutral and dark feminine products; however, they did not make such differences for the masculine product ($F(2, 46) = 3.47, p = .04, \eta^2 = .13$). More interestingly, males chose pointed stimuli more often when choosing a design for the masculine, than for the feminine product ($F(2, 46) = 2.88, p = .06, \eta^2 = .11$). Additionally, males chose pointed shapes more often when presented in warm than in cool colors, but only when the stimuli were dark ($F(1, 46) = 6.23, p = .02, \eta^2 = .12$). On the other hand, female choices reflected none of these differences. Our results show that color-shape associations are moderated by participants' gender, which was not the focus of previous studies. This finding is in line with previous conclusions about the complexity and instability of these associations. More importantly, a different pattern of choices for different types of products observed within this study suggests that color-shape associations are not only task and stimulus-dependent - but also context-dependent.

Keywords: color theory; intramodal associations; color-shape associations; context dependency; gender differences



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Exploring facets of romantic relationships in emerging adults: The significance of relationship importance and quality of relationship with parents

Emerging adulthood is a time when young people gain experience in romantic relationships (RR) before settling down with a steady partner. The degree of subjective importance of the RR and its benefits in the context of other life priorities are an important source of motivation for individuals to enter and maintain an intimate relationship. On the other hand, romantic experiences may be related to the quality of the relationship with parents, who are still an important source of support at this age. The aim of this study was to examine how the perceived importance of RR, measured as relationship desire and relationship dismissal, is related to emerging adults' romantic relationship status, number of lifetime partnerships, duration of the longest RR, duration of current partnership (participants in a relationship only), and intensity of interest in a relationship (measured in single participants only). In addition, we were interested in whether experiencing connectedness and intrusiveness in relation to mother and father significantly contributed to predicting emerging adults' romantic experiences, over and above the perceived importance of RR. Participants (N = 464, 64.4% female, Mage = 22.59) provided self-reports on RR experiences, the Individuation Test for Emerging Adults (ITEA-S), and the Brief Measure of Relationship Interest. We found that participants who were in a relationship reported higher relationship desire and lower relationship dismissal, as well as lower levels of perceived intrusiveness from mothers and fathers than single participants. Duration of current partnership was positively related to relationship desire, while participants who had less experience with partnerships showed higher relationship dismissal. Single participants who reported higher interest in a relationship had more positive attitudes toward the importance of RR. Results of hierarchical regression analyses showed that demographic variables (age, gender, living situation) and perceived importance of RR explained a significant amount of variance in RR experiences, whereas parental intrusiveness and connectedness significantly added to the prediction of the length of the current RR and the length of the longest RR. Our findings suggest that the perceived importance of RRs, as well as certain interpersonal dynamics between emerging adults and parents, especially in relation to the father, play an important role in different facets of RRs among emerging adults.

Keywords: emerging adulthood, romantic relationships, relationship importance, parental connectedness, parental intrusiveness

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Bulletproof? A cross-lagged relationship between subjective stress and resilience in adolescence

Post-epidemic research on adolescent mental health implies an increase in internalized problems due to stressful circumstances. However, while the perception of stress highly differs from objective stressful events that occurred, subjective stress has an important role in the development of both mental health problems and individual resilience, which is seen as an ability to overcome stressful situations. Therefore, the aim of this study was to explore the relationship between subjective stress and adolescent resilience over time, using a longitudinal research design that included three measurement points. Data were collected within the larger research project Longitudinal Adolescent Stress Study, and analysis was conducted on 1654 Croatian adolescents (56.2% male) who participated in at least two waves of the study. High-school students were followed during a 1.5-year period – starting in spring 2022, with assessments occurring approximately every 6 months.

The relationship between subjective stress and resilience over time was examined using path analysis, in a cross-lagged model which showed a good fit, $\chi^2(2) = 2.85$, $p = .240$. Both subjective stress and resilience showed stability, with standardized path coefficients between adjacent time points ranging from .45 to .65. Within the same time point, there was a negative association between adolescents' subjective stress and resilience (r 's \geq -.24). Results also indicated that stress in later time point can be predicted from resilience from previous time point, and vice versa, with the size of standardized path coefficients ranging from -.12 to -.08. Taken together, the results of this study indicate that being resilient is not enough to buffer all effects of stress since higher prior stress is also associated with later lower resilience. Therefore, even resilient adolescents could benefit from interventions promoting mental health.

Keywords: subjective stress, resilience, adolescence, cross-lagged relationship

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A test of the social reaction model of perfectionism in sport setting

According to the Social Reaction Model of Perfectionism (Flett et al., 2002), individuals who have been raised in an unfriendly environment, characterized by a sense of heartless authority, severe criticism, or exposure to psychological and physical mistreatment, develop maladaptive patterns of perfectionism (Flett et al., 2002; Wilson et al., 2015). In sport environment, young athletes encounter various forms of feedback in response to unsatisfactory athletic performance, which in some cases includes different forms of violence (Fields et al., 2009). Thus, the aim of the study was to investigate whether exposure to hostile behaviors from sport coaches and teammates during childhood and adolescence is associated with higher levels of maladaptive perfectionism in young adulthood.

The study sample consisted of 501 (39.1% female) kinesiology students ($M_{age} = 20.86$, $SD = 1.81$) who participated in competitive sports before they turned 18 years old. The participants completed the Multidimensional Inventory of Perfectionism in Sport (Stoeber et al. 2007) which consists of adaptive and maladaptive perfectionism subscales. In addition, participants indicated the frequency with which, during their minor years, they encountered verbal aggression and neglect from their coach, as well as the frequency of experiencing verbal and relational aggression from their teammates.

According to the obtained results, while they were young athletes, most of the participants were subjected to verbal aggression (80.9%) and neglect (60.1%) from their sports coaches. In addition, 82.9% of participants experienced verbal and nearly half of the participants (48.7%) experienced relational aggression from their teammates. In comparison with participants who didn't have this kind of experience, a significantly higher level of maladaptive perfectionism was reported by participants who had experienced verbal aggression ($t(488) = -3.83$, $p < .001$) and neglect ($t(488) = -2.86$, $p < .01$) from their sports coaches. In similar way, higher levels of maladaptive perfectionism were reported by participants who, in their younger age, were victims of peer verbal aggression ($t(488) = -2.34$, $p < .05$) and relational violence ($t(488) = -2.91$, $p < .01$). As expected, there were no significant differences between the groups in terms of their average level of adaptive perfectionism.

The results provide support for Social Reaction Model of Perfectionism (Flett et al., 2002) which posits that the function of maladaptive perfectionism is to reduce the likelihood of punishment, humiliation, and abuse. A significant number of young athletes, who actively participate in sport competitions, grow up in a hostile



environment in which unmet expectations are accompanied by aversive consequences (David, 2005) what makes them vulnerable for the development of maladaptive perfectionism.

Keywords: perfectionism, young athletes, verbal aggression, relational aggression, neglect



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Hedonia as the moderator of the relationship between perceived stress and mental health

Hedonia represents a well-being type which rises from behaviors when pursuing joy and pleasure. It is related to both, the perception of stress (i.e. the degree to which people find life uncontrollable and unpredictable) and mental health (i.e. the state that reflects the presence of positive mental health and the absence of negative mental health). Considering that stress may trigger numerous mental health issues, the aim of the research was to investigate whether hedonia moderates the effects of perceived stress on mental health. Three faculties of the J. J. Strossmayer University of Osijek were randomly selected as well as its departments until the desired number of participants was obtained. The data collection was group-based and cross-sectional. In total 328 participants took part in this study of which 208 (63,4%) were females. Participants' ages range from 18 to 30 years ($M=19$, $SD=1.32$). Hedonia was measured with the Hedonia scale from The Hedonic and Eudaimonic Motives for Activities (Huta & Ryan, 2010; Cronbach $\alpha=.81$), the perceived level of stress was defined by The Perceived Stress Scale (Cohen et al., 1983; Cronbach $\alpha=.84$) while mental health was determined with Mental Health Inventory (Veit & Ware, 1983; Cronbach $\alpha=.93$). The regression analyses and the analysis of variance were used to analyse the results. It has been shown that hedonia moderates the relationship between low perceived stress and mental health ($R^2=.66$, $F(5,327)=126,28$, $p<.001$). Those with low stress and high hedonia had the best mental health. In comparison to them, somehow worse mental health was reported by those with low stress and low hedonia. Under high stress, however, there was no difference in mental health between those who experienced high vs low hedonia. The study demonstrated that pursuing pleasure during stressful times may be a way to preserve mental health which is useful information when tailoring individual programs of stress reduction and improving one's mental health.

Keywords: hedonia, stress, mental health



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Internalizacija fit ideala ljepote i nezadovoljstvo slikom tijela u objašnjenju odstupajućih navika hranjenja i vježbanja

Ideal mršavosti dugo je bio dominantan ideal ženske ljepote u zapadnjačkom društvu. Posljednjih se godina to mijenja te sadašnji društveni ideal predstavlja tjelesna figura koja je istovremeno mršava i zategnuta – fit ideal. Kada osoba internalizira određeni ideal ljepote, svako odstupanje od njega može dovesti do nezadovoljstva vlastitim tijelom i posezanja za raznim metodama za promjenu izgleda, od kojih neke mogu imati ozbiljne zdravstvene posljedice. Pretpostavke o štetnosti fit ideala još nisu dovoljno razjašnjene. Cilj je ovoga istraživanja ispitati odnos između internalizacije fit ideala ljepote, nezadovoljstva slikom tijela te odstupajućih navika hranjenja i kompulzivnog vježbanja kod mladih žena u Hrvatskoj. U istraživanju je sudjelovalo 514 žena u dobi između 18 i 25 godina ($M = 21.63$, $SD = 2.24$). Prosječan indeks tjelesne mase ispitanica iznosi 22.16 ($SD = 3.72$), a kreće se u rasponu od 15.99 do 46.29. U ovome online istraživanju, korišteni su: Test internalizacije fit ideala (FIIT), Test tjelesne nelagode (BUT-A), Upitnik navika hranjenja (EAT-26) i Test kompulzivnog vježbanja (CET). Rezultati pokazuju visoku pozitivnu povezanost internalizacije fit ideala i nezadovoljstva slikom tijela ($r = .65$, $p < .01$), te su obje varijable pozitivno povezane s odstupajućim navikama hranjenja (internalizacija: $r = .49$, $p < .01$; nezadovoljstvo: $r = .48$, $p < .01$) i kompulzivnim vježbanjem (internalizacija: $r = .63$, $p < .01$; nezadovoljstvo: $r = .30$, $p < .01$). Internalizacija fit ideala objašnjava 24% ($R^2 = .24$, $F(1,512) = 162.63$, $p < .01$), a nezadovoljstvo slikom tijela dodatnih 4% varijance odstupajućih navika hranjenja ($\Delta R^2 = .04$, $F(2,511) = 100.92$, $p < .01$) i obje su varijable značajni prediktori ovoga kriterija ($\beta_{\text{internal.}} = .32$, $p < .01$; $\beta_{\text{nezadov.}} = .27$, $p < .01$). Nešto veći postotak varijance objašnjen je za kompulzivno vježbanje: internalizacija objašnjava 40% ($R^2 = .40$, $F(1,512) = 338.70$, $p < .01$), a nezadovoljstvo dodatnih 2% varijance kompulzivnog vježbanja ($\Delta R^2 = .02$, $F(2,511) = 184.24$, $p < .01$), pri čemu su opet obje varijable značajni prediktori kriterija ($\beta_{\text{internal.}} = .75$, $p < .01$; $\beta_{\text{nezadov.}} = -.19$, $p < .01$). U skladu s očekivanjima, rezultati ukazuju na medijacijski učinak nezadovoljstva slikom tijela u odnosu između internalizacije fit ideala i odstupajućih navika hranjenja (95% CI = .12, .26), kao i između internalizacije i kompulzivnog vježbanja (95% CI = -.19, -.07). Veća razina internalizacije fit ideala veže se uz veće nezadovoljstvo vlastitim tijelom, što je zatim povezano s provođenjem raznih dijeta s ciljem približavanja društvenom idealu ljepote, ali i manjim uključivanjem u vježbanje, moguće radi srama, straha od negativne evaluacije i slično. Rezultati istraživanja upućuju na važnost internalizacije fit ideala u kontekstu odstupajućih navika hranjenja i kompulzivnog vježbanja, te na potrebu za radom na



prihvaćanju vlastitog tijela i usmjeravanju na zdrave načine reguliranja tjelesne težine i oblika tijela.

Ključne reči: internalizacija fit ideala, nezadovoljstvo slikom tijela, odstupajuće navike hranjenja, kompulzivno vježbanje

Zahvalnica: Ovaj je rad financiralo Sveučilište u Rijeci projektom broj: uniri-drustv-18-63.

Fit-Ideal Internalization and Body Image Dissatisfaction in Explaining Disturbed Eating and Exercise Habits

Thin ideal has long been the dominant standard of female beauty in Western society. In recent years, this has been changing, and the current social ideal is represented by a body figure that is both thin and toned – the fit ideal. When individuals internalize a certain beauty ideal, any deviation from it can lead to body dissatisfaction and the adoption of various methods to alter their appearance, some of which may have serious health consequences. The assumptions regarding the harmful effects of the fit ideal have yet to be sufficiently clarified. The aim of this research is to examine the relationship between the fit ideal internalization, body image dissatisfaction, and disturbed eating habits and compulsive exercise among young women in Croatia. The study involved 514 women aged between 18 and 25 years ($M=21.63$, $SD=2.24$). The average body mass index (BMI) of the participants was 22.16 ($SD=3.72$), ranging from 15.99 to 46.29. The following measures were used in this online survey: Fit-Ideal Internalization Test (FIIT), Body Uneasiness Test (BUT-A), Eating Attitudes Test (EAT-26), and Compulsive Exercise Test (CET). The results showed a high positive correlation between the fit ideal internalization and body image dissatisfaction ($r=.65$, $p<.01$), and both variables were positively correlated with disturbed eating habits (internalization: $r=.49$, $p<.01$; dissatisfaction: $r=.48$, $p<.01$) and compulsive exercise (internalization: $r=.63$, $p<.01$; dissatisfaction: $r=.30$, $p<.01$). The fit ideal internalization explained 24% ($R^2=.24$, $F(1,512)=162.63$, $p<.01$), while body image dissatisfaction accounted for an additional 4% of the variance in disturbed eating habits ($\Delta R^2=.04$, $F(2,511)=100.92$, $p<.01$). Both variables were significant predictors of this criterion ($\beta_{\text{internal.}}=.32$, $p<.01$; $\beta_{\text{dissat.}}=.27$, $p<.01$). A slightly higher percentage of variance was explained for compulsive exercise: internalization explained 40% ($R^2=.40$, $F(1,512)=338.70$, $p<.01$), and dissatisfaction accounted for an additional 2% of the variance ($\Delta R^2=.02$, $F(2,511)=184.24$, $p<.01$); both variables were significant predictors of the criterion ($\beta_{\text{internal.}}=.75$, $p<.01$; $\beta_{\text{dissat.}}=-.19$, $p<.01$). The results indicate a mediating effect of body image dissatisfaction in the relationship between the fit ideal internalization and disturbed eating habits (95% CI=.12,.26), as well as between internalization and compulsive exercise (95% CI=-.19,-.07). Higher levels of fit ideal internalization are associated with greater body dissatisfaction, which is then linked to the implementation of various diets with the aim of approaching the beauty ideal, but also with less involvement in exercise, possibly due to shame, fear of negative evaluation, and similar. The research findings



indicate the importance of the fit ideal internalization in the context of disturbed eating habits and compulsive exercise, underscoring the need to promote body acceptance and encourage healthy approaches to manage body weight and shape.

Keywords: fit ideal internalization, body image dissatisfaction, disturbed eating habits, compulsive exercise

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Does Self-Uncertainty Enhance or Interfere with Future Thinking: Preliminary Study Findings

The pragmatic prospection theory implies that overcoming uncertainty of the multiple competing future alternatives through enhanced simulation of plausible options may be a beneficial adaptive strategy. There is also evidence that uncertainty results in aversive emotional states, makes people overfocused on the present or even past experience, and interferes with optimal decision-making increasing one's myopia for the future.

A pilot study assessed the effect of primed self-uncertainty (SU) on future thinking (FT) fluency in a student sample.

Methods: Russian graduate and postgraduate university students were examined in November 2021–February 20, 2022. They were randomized to uncertainty-neutral (CC) and uncertainty-primed (UPC) conditions prior to examination. People who reported any mental problem or visiting a psychiatrist; had clinical symptom levels on the scales were excluded. UPC participants were asked to describe the emotions that the thought of being uncertain aroused in them, and write down what would physically happen to them as they felt uncertain. CC answered similar questions about watching videos. Then, CC and UPC went through Positive and Negative Affect Schedule, Future Fluency Task (FFT); manipulation check; verbal fluency task (VFT) and Hospital Anxiety and Depression Scale. In FFT, the participants named positive / negative future events that would occur to them over three time periods (“the next week”, “the next year” and “the next 5-10 years”) during 1 minute per each trial. The events per each time and valence condition were counted (save as repetitions).

Results. CC included 56 people, aged 25.6 (SD=3.5) y.o.; UPC included 57 people, aged 24.6 (SD=3.4) y.o. The groups did not differ as to age ($p=0.12$; Cohen's $d=0.28$); gender ($p=0.063$); marriage ($p=0.3$); employment ($p=1$); positive ($p=0.36$) and negative affect



($p=0.7$); anxiety ($p=0.13$); depression ($p=0.53$) and VFT ($p=0.8$). UPC had higher self-report uncertainty than CC ($Z=-5$; $p=0.001$; $r=0.47$).

CC generated more future events (28 [24÷41] versus 26 [18÷33] events in UPC, $Z=-2$; $p=0.04$; $r=0.18$), probably due to a larger share of events within one-year period (10 [7÷12.8] versus 8 [6÷11] in UPC, $Z=-2.2$; $p=0.026$; $r=0.21$). CC reported more long-term positive events (6 [4÷8] versus 5 [4÷7] events in UPC, $Z=-2.6$; $p=0.01$; $r=0.24$) but the total number of positive events in 2 groups was similar. The main intergroup difference arose due to UPC participants' reduced capacity to think about negative events in the short (3 [1.5÷5] versus 5 [3÷7] events in CC, $Z=-2.7$; $p=0.01$; $r=0.25$) and mid-term (3 [1÷4] versus 4 [2÷6] events in CC, $Z=-2.5$; $p=0.01$; $r=0.23$), and in general (10 [5÷14.5] versus 13 [8÷17.8] events in CC, $Z=-2.2$; $p=0.03$; $r=0.21$).

SU seemed to affect people's ability to think of plausible future events in general and restricting negative short and mid-term FT in particular. This mechanism may be involved in decision making and goal implementation problems and needs further exploration.

Keywords: future thinking; self-uncertainty; pragmatic prospection theory; future fluency task



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The hesitant, the anxious and the vaccinated: Factors of COVID-19 vaccine acceptance

Recent studies indicated that people's compliance with the recommended health behaviors during the COVID-19 pandemic can be influenced by different factors. This study aimed to examine how various socio-demographic characteristics and individual factors (knowledge about the coronavirus, general anxiety disorder and basic personality traits, political orientation) contribute to one specific form of this adherence - COVID-19 vaccine acceptance. A sample was comprised of 347 participants (42.1% male) from the general population in Serbia, aged between 19 and 54 years ($M = 29.98$, $SD = 9.42$). The data for this study were gathered online in April 2021, approximately three months after the commencement of vaccination in Serbia. The majority of participants were students (45%) or held a university degree (25.6%), while the rest completed primary or secondary school. The logistic regression analysis was applied with vaccination status as criteria (coded as 0 = not vaccinated and not planning to apply for and 1 = applied for or already vaccinated) and the following variables as predictors: socio-demographic variables (gender, age, educational level, material status, number of



household members), knowledge about coronavirus, general anxiety disorder, Big Five personality traits, and political orientation (left-right). The results revealed that certain factors were statistically significant predictors of COVID-19 vaccine acceptance. The model ($\chi^2(13) = 45.15, p < .001$) explained between 12% (Cox & Snell R^2) and 16% (Nagelkerke R^2) of criterion variance and correctly classified 63.4% of cases. Specifically, the age ($\text{Exp}(B) = 1.06, p < .001$), educational level ($\text{Exp}(B) = 1.39, p = .003$), and general anxiety disorder ($\text{Exp}(B) = 1.43, p = .046$) were found to be significant predictors, all in a positive direction. In other words, a higher vaccine acceptance rate is more probable among older participants, those with higher educational level, and those who have higher scores on the general anxiety disorder scale. It is noteworthy that other socio-demographic characteristics as well as personality traits, knowledge about coronavirus, and political orientation did not emerge as significant predictors of COVID-19 vaccination status. However, the non-significant role of personality traits may suggest that other factors may play a more influential role in vaccination decision-making. These findings have implications for public health interventions and vaccine promotion campaigns, as they underscore the need to address age and educational disparities and anxiety-related concerns when targeting vaccine acceptance and uptake in the general population. Future research should explore additional factors that may contribute to vaccine hesitancy and information strategies to promote widespread vaccination.

Keywords: protective measures, vaccination, COVID-19, personality traits, general anxiety disorder



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Uticaj dubine obrade reči pri implicitnom učenju na uspešnost reprodukcije

Polazeći od teorije dvostrukog koda (TDK; Paivio, 1991), teorija utelovljenosti (Barsalou, 1999) i teorije dubine obrade informacija (Craik & Lockhart, 1972), sproveli smo istraživanje kako bismo proverili uticaj dubine obrade reči (vremensko zadržavanje tokom procenjivanja različitih karakteristika reči) na uspešnost reprodukcije konkretnih i apstraktnih reči pri implicitnom učenju. Pored ovoga, želeli smo da proverimo i da li će konkretnost reči doprineti uspešnijoj incidentalnoj reprodukciji, s obzirom na to da prema TDK, konkretne reči poseduju neverbalni memorijski kod koji predstavlja dodatni znak za doseganje prilikom reprodukcije. U istraživanju je učestvovalo 200 studenata psihologije Fakulteta za medije i komunikacije u Beogradu (170 ženskog pola), prosečne starosti 23 godine. Šest grupa ispitanika radilo je različite procene za 45 imenica srpskog



jezika, od kojih su 15 reči bile apstraktne, 15 reči su predstavljale pojmove koji se mogu iskusiti manjim brojem čula, a 15 su označavale pojmove koji se mogu iskusiti većim brojem čula (faktor broja modaliteta). Sve tri grupe reči bile su ujednačene po relevantnim psiholingvističkim varijablama (frekvencija, familijarnost, dostupnost konteksta, emocionalna valenca, pobudljivost). Po dve grupe ispitanika je radilo procenu konkretnosti reči, procenu dostupnosti konteksta i procenu živopisnosti mentalnih slika datih reči (faktor dubine obrade). Iz svake grupe koja je radila određenu procenu reči je potom jedna grupa radila zadatak slobodne ili zadatak navođene reprodukcije (faktor zadatka). Dakle, primenjen je trofaktorski nacrt, pri čemu je zavisna varijabla bila procenat tačne reprodukcije. U skladu sa očekivanjima, dobijeni rezultati iz ANOVA testa sa ponovljenim merenjima ukazuju da je reprodukcija bila bolja u zadatku navođene reprodukcije: $F(1,194)=16.05$, $p<.01$, $\eta^2=.08$. Takođe, u skladu sa pretpostavkom, zabeležen je i glavni efekat dubine obrade: $F(2, 194)=4.91$, $p<0.01$, $\eta^2=.05$ - ispitanici koji su procenjivali živopisnost mentalnih slika datih reči, najduže su radili procene (320s), u odnosu na ispitanike koji su procenjivali konkretnost (305s) i dostupnost konteksta reči (240s), što je rezultiralo i tačnijom reprodukcijom reči u oba zadatka pamćenja. Za razliku od prethodnih istraživanja (Paivio et al., 1988), ispitanici su bolje pamtili apstraktne reči ($M=24$, $SD=14.3$), zatim one koje se mogu iskusiti manjim brojem čula ($M=20.93$, $SD=16.01$), a zatim one koje se mogu iskusiti većim brojem čula ($M=19.6$, $SD=13.66$): $F(2, 388)=16.13$, $p<.01$, $\eta^2=.08$. Dobijen je i statistički značajan efekat trostruke interakcije: $F(4,388)=4.49$, $p<.05$, $\eta^2=.04$. Obrnut efekat broja modaliteta je možda posledica toga što su konkretne reči bile lakše za procenu, te su se ispitanici manje zadržavali na njima, što je rezultiralo lošijom reprodukcijom. U narednim istraživanjima, kako bi se utvrdila hipoteza o lakoći obrade konkretnih reči, faktor broja modaliteta bi trebalo tretirati kao međugrupni faktor.

Ključne reči: Teorija dvostrukog koda, teorija utelovljenosti, teorija dubine obrade, implicitno učenje, zadaci reprodukcije

Zahvalnica: Ovo istraživanje je podržano od strane Fakulteta za medije i komunikacije, Univerziteta Singidunum.

The influence of word processing depth in implicit learning on reproduction performance

Based on the dual coding theory (DCT; Paivio, 1991), embodiment theory (Barsalou, 1999), and levels of processing theory (Craik & Lockhart, 1972), we conducted research to check the influence of word processing depth (time spent evaluating different word characteristics) on the reproduction performance of concrete and abstract words in implicit learning. Additionally, we wanted to investigate whether word concreteness would contribute to more successful incidental reproduction, given that, according to DCT, concrete words possess a nonverbal memory code that serves as an additional cue for retrieval during reproduction. The research involved 200 psychology students from the Faculty of Media and Communications in Belgrade (170 females), with an average age of 23 years. Six groups of participants performed different evaluations for 45



Serbian nouns, of which 15 were abstract, 15 represented concepts that can be experienced with fewer senses, and 15 represented concepts that can be experienced with a larger number of senses (number of modalities factor). All three groups were matched on relevant psycholinguistic variables (frequency, familiarity, contextual availability, emotional valence, arousal). Two groups of participants performed evaluations of word concreteness, contextual availability, and imagery vividness of mental images associated with the words (depth of processing factor). One group from each evaluation group then performed a free recall task, while the other group performed a cued recall task (task factor). Thus, a three-factor design was implemented, with the dependent variable being the percentage of correctly reproduced words. Consistent with our expectations, the results obtained from the repeated measures ANOVA indicated better reproduction performance in the cued recall task: $F(1,194)=16.05$, $p<.01$, $\eta^2=.08$. As predicted, a main effect of processing depth was observed: $F(2, 194)=4.91$, $p<.01$, $\eta^2=.05$. Participants who evaluated the vividness of mental images associated with the words spent the longest time on the evaluations (320s), compared to participants who evaluated concreteness (305s) and contextual availability (240s), resulting in more accurate word reproduction in both memory tasks. In contrast to previous research (Paivio et al., 1988), participants remembered abstract words better ($M=24$, $SD=14.3$), followed by words that can be experienced with a smaller number of senses ($M=20.93$, $SD=16.01$), and then words that can be experienced with a larger number of senses ($M=19.6$, $SD=13.66$): $F(2, 388)=16.13$, $p<.01$, $\eta^2=.08$. A statistically significant triple interaction effect was found: $F(4,388)=4.49$, $p<.05$, $\eta^2=.04$. The reverse effect of modality number might be since concrete words were easier to evaluate, resulting in less time spent on them by participants and poorer reproduction. In future research, the modality factor should be treated as a between-group factor to test the hypothesis of the ease of processing concrete words.

Keywords: Dual coding theory, embodiment theory, depth of processing theory, implicit learning, recall task

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Motivation as one of the key factors in the process of mastering English as a foreign language (research protocol)

In the modern digital age, the English language has proven to be a necessary competence for various activities. Formal early English language learning, although important, has not always been crucial for mastering the language. Digital technologies



and exposure to the English language through various multimedia sources can lead to a mismatch between "school" English and the English language that students need for authentic use in their free time, resulting in a decline in motivation to learn English in school and/or a lack of expected success. This trend has already been observed in some European countries, but it has not been examined in relation to mastering English as a foreign language in the Croatian context.

The aim of this research is to examine the relationship between motivation as a key factor and informal exposure to the English language in formal mastery of English as a foreign language in Croatian schools. The study involves 180 students from the 6th grade of primary schools. In the first measurement point (June 2023), students completed the Questionnaire on Extracurricular Exposure to the English Language, the Questionnaire on Motivation for Foreign Language Learning, the Questionnaire on Age of Onset of English Language Learning, and the Receptive Vocabulary Test for Young Learners. In the second measurement point (September 2023), students will complete the Communication Language Competence Test (A2 level) for listening, reading comprehension, and writing (Cambridge Young Learners Sample Papers 2018) and provide data on their school success in English for the previous school year (6th grade). In the third measurement point (October 2023), a subsample of students will be selected for additional testing of speaking activities in English.

The paper will present preliminary results from the first two measurement points (June and September 2023). By controlling for students' sociodemographic characteristics (gender, age, environment), the contribution of motivation as a key factor and the contribution of informal English learning before and during schooling will be examined in the success of formal mastery of the English language (school success in English, percentage of correctly solved vocabulary, listening and reading comprehension, and writing tasks) through a series of hierarchical regression analyses. As this research is part of the bigger project, details can be found at the following link: <https://www.croris.hr/projekti/projekt/8590>.

In addition to comparing the situation with other EU countries, the research findings may indicate the need for certain programmatic changes that would better support students' motivation and their everyday informal learning of English that occurs outside the context of (non)formal education.

Keywords: motivation, informal foreign language learning, extracurricular exposure to English, formal success, school success.

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Positive developmental characteristics, mental health problems and perception of school climate

Recent studies are increasingly focused on the potential and resources of young people and how to encourage them. One of the current models of positive youth development (PYD) is the 5C model, which includes five components: competence, confidence, character, caring and connections. PYD approach emphasizes adolescents' strengths, competencies and positive outcomes that occur when youth engage with caring and supportive adults. Given that teachers and other important adults should empower the components of positive development, there is an interest in examining the components of positive development among them. Research on the relationship of positive development conducted on adolescents indicates a negative connection between the 5C components and mental health problems and a positive connection between the 5C components and the perception of the school climate. The assumption is that a similar trend should be shown in adults, but since the measurement of these components in adults is new, we have no data on these relationships. The research questions in this study were: 1. Is there a connection and what is the direction of the connection between the components of positive development, mental health problems and the perception of the school climate among secondary school teachers and 2. Can the perception of the school climate be predicted by the components of positive development and mental health problems? Participants were 1019 secondary school teachers (231 males, 751 females, 13 would rather not say, average age $M = 44.3$, $SD = 10.85$). The teachers were from secondary schools of different profiles (gymnasium – 24%, four- or five-year vocational school – 61%, three-year vocational school – 16%). Data were collected online using self-report scales: 1. Revised Five Cs Very Short Form: Adults which measures five components of positive development (competence, confidence, character, caring and connections) with 34 items. 2. The DASS-21 scale was used to measure the emotional states of depression, anxiety and stress with 21 items. 3. Croatian School Climate Survey which measures school climate as a unidimensional construct with 18 items. The results showed that the components of positive development, except caring, were negatively related to mental health problems (from $r = -.12$ to $r = -.48$). All components of positive development were positively related to the school climate (from $r = .39$ to $r = .52$).



Regression analysis showed that all indicators of positive development were significant predictors of school climate (competence – $\beta = .18$, confidence – $\beta = .09$, character – $\beta = .13$, caring – $\beta = .15$, and connections $\beta = .27$). Stress has proven to be significant negative predictor of school climate ($\beta = -.15$). Considering that the components of positive development were shown to be related with fewer mental health problems and a better perception of the school climate, this indicates the importance of empowering 5Cs among teachers.

Keywords: positive development, mental health problems, school climate, teachers

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Color memory strategies depend on color labels

Categorical perception of color (CPC) refers to the faster and more accurate discrimination of colors with different labels (e.g., green and blue) than colors with the same label (e.g., two shades of blue). Previous research has suggested that, while performing a color discrimination task, participants use a color-naming strategy for easily accessible labels (basic color terms) and when color memory is required.

In this study, we further investigated color-memory strategies for colors that are easily named (basic color terms) and colors that are more difficult to name (non-basic terms). We introduced visual interference into the color discrimination task by varying the shape of the stimuli (geometric and abstract). We expected its' more significant influence when the color naming strategy is less optimal, i.e., with difficult-to-name colors.

Across two experiments (E1, E2), participants performed a delayed 2AFC task - they had to specify which of the two subsequently presented stimuli (ISI=1500ms) had the same color as the previously shown target. In E1 (N=20), we used 12 green and blue colors and formed between-category (blue-green) and within-category color pairs (blue-blue; green-green). In E2 (N=19), we chose 12 pairs of colors labeled with non-basic terms in the Serbian language. Visual interference had four conditions: 1) all stimuli had the same shape (neutral); 2) all stimuli had different shapes (control); 3) the target and the same-colored stimulus had the same shape (congruent); 4) the target and the differently colored stimulus had the same shape (incongruent).

In E1, we observed an interaction between CPC and interference – the incongruent condition impeded the task only in the case of within-category color pairs ($F(3,57) = 2.99$,



$p = .03$; $\eta^2 = .13$). The main effect of CPC was also observed – participants were more accurate when discriminating colors from different categories ($F(1,19) = 22.31$, $p = .0001$; $\eta^2 = .54$). For difficult-to-name colors (E2), the main effect of shape was observed – the participants were significantly less accurate with abstract compared to geometric shapes ($F(1,18) = 25.66$, $p < .0001$; $\eta^2 = .58$). However, shape also interacted with the interference - for abstract shapes, participants were less accurate in the neutral condition, i.e., when shape information was uninformative for the task solving ($F(3,54) = 25.45$, $p < .0001$; $\eta^2 = .58$).

Our results support previous findings that, depending on the nameability of colors, participants tend to use different memorizing strategies. When different labels are available (blue-green), participants tend towards the naming strategy. On the other hand, when presented with colors with the same name (e.g., blue and blue) and especially when color names are not easily accessible (non-basic color labels), they rely more on the visual strategy.

Keywords: Categorical perception, basic color terms, color-memory, visual interference.



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Self-reported perceptual disorders in individuals with long COVID

The COVID-19 pandemic resulted in a growing number of patients experiencing a prolonged illness called post-acute sequelae of SARS-CoV-2 (PASC) or long COVID. Long COVID can be defined as symptoms that develop during or after COVID-19 and continue for more than 12 weeks and are not explained by an alternative diagnosis. Several studies reported persistent symptoms related to sensory organs. In the present study, we examined the changes that individuals with PASC perceive in their visual, auditory, somatosensory, gustatory, and olfactory perception. In addition, we were interested in the impact that the various symptoms have on their lives and well-being. Based on the Research Domain Criteria (RDoC) framework, we developed a semi-structured interview on difficulties in different cognitive domains, including perception, and their subdomains. Interviews were conducted via Zoom and in person in early 2023 with a purposive sample of 15 working-age individuals who responded to online invitations posted in Facebook groups and on an Instagram account discussing COVID-19. These individuals had contracted SARS-CoV-2 between September 2020 and June 2022 and reported having PASC in the past or at the time of the interview. In the perceptual domain, participants (frequency listed in parenthesis) reported various disorders in one (1) or more (12) sensory modalities during the long COVID. The most commonly reported changes they experienced compared with the times before infection were: increased



sensitivity to noise (9), anosmia/hyposmia (10) and dysosmia (8), changes in body sensations (6), visual distortions (3), dioptric change (5), hypogeusia (5), hearing impairment (4), auditory overload (4), and tinnitus (3). The perceptual disorders were often accompanied by vertigo (8), headache (5), fatigue (6), and shortness of breath (5). They frequently occurred together with cognitive changes, i. e., brain fog (11) and difficulties with attention (13), working memory (13), learning (11), word finding (12), and executive function (13), and together with depression (5) and decreased emotional control (10). We conclude that altered sensory experiences, along with cognitive impairment and mental health changes, may indicate PASC. Careful examination of the various symptoms may help identify PASC patients and develop clinical pathways, supportive interventions, cognition-oriented treatments, and adjustments of the work or study environment of these patients.

Keywords: Post-COVID-19 conditions, perception, cognitive impairment, semi-structured interview

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Povezanost emocionalne inteligencije, empatije i temperamenta s agresivnim ponašanjem kod adolescenata

Agresivno ponašanje mladih postaje sve izraženiji problem suvremenog društva stoga je važno istražiti čimbenike koji su s njime povezani. Cilj je ovoga istraživanja bio ispitati povezanost emocionalne inteligencije, empatije i određenih aspekata temperamenta s agresivnošću kod adolescenata. U istraživanju su sudjelovali učenici dviju srednjih škola (N = 368, 55 % mladića), u rasponu dobi od 15 do 18 godina (M = 16.17, SD = 0.83). Osim demografskih podataka, sudionici su ispunili Upitnik emocionalne kompetencije, E-upitnik (podljestvicu emocionalne empatije), Upitnik temperamenta u ranoj adolescenciji te SNOP Skalu agresivnosti za djecu i adolescente (podljestvice Prkošenje i suprotstavljanje, Ophođenje, Žrtva i Nasilnik). Dobivene su značajne iako niske korelacije između emocionalne inteligencije, empatije, temperamenta i agresivnosti. Adolescenti koji postižu niži rezultat na ukupnoj skali samoprocjene emocionalne inteligencije iskazuju više prkošenja i suprotstavljanja ($r = -.14$; $p < .05$). Niža samoprocjenjena sposobnost regulacije i upravljanja emocijama povezana je s višim rezultatom na ukupnoj skali agresivnosti ($r = -.18$; $p < .01$), kao i izraženijim sljedećim nepoželjnim ponašanjima: ophođenje (agresivna i neagresivna ponašanja kojima se



ugrožavaju temeljna prava drugih ili krše važne socijalne norme; $r = -.12$; $p < .05$) te prkošenje i suprotstavljanje ($r = -.27$; $p < .01$). Što se tiče empatije, adolescenti s nižom empatijom izvještavaju o višim rezultatima na podljestvicama ophođenje ($r = -.17$; $p < .01$) i nasilnik (npr. Govorio sam ružno o drugima.; $r = -.16$; $p < .01$). Nizak rezultat na dimenziji temperamenta samokontrola povezan je s višom ukupnom agresivnošću ($r = -.19$; $p < .01$), ali i s rezultatima na podljestvicama prkošenje i suprotstavljanje ($r = -.33$; $p < .01$) te ophođenje ($r = -.16$; $p < .01$). Nadalje, mladići pokazuju više agresivnog ponašanja u odnosu na djevojke kada se agresivnost gleda kao ukupni rezultat ($t(356) = 4.28$, $p < .01$, Cohenov $d = 0.46$) te također iskazuju više agresivnih ponašanja i na podljestvicama ophođenje (npr. Prijetio sam ili zastrašivao druge.), žrtva (npr. Drugi učenici su me vrijeđali na ružan način.) i nasilnik (npr. Vrijeđao sam druge na ružan način.). Kako bismo ispitali doprinos emocionalne inteligencije, empatije i temperamenta u objašnjenju agresivnosti, proveli smo pet hijerarhijskih regresijskih analiza. Model kojim smo objasnili najveći postotak varijance (27.7%), je onaj u kojem je kriterijska varijabla bila podljestvica agresivnosti Prkošenje i suprotstavljanje ($F(4, 339) = 32.50$, $p < .01$). Prema dobivenim rezultatima, adolescenti s nižom samokontrolom ($\beta = -.21$), više izraženim negativnim afektom ($\beta = .39$) te slabijom sposobnosti regulacije i upravljanja emocijama ($\beta = -.16$), češće će pokazati agresivno ponašanje. Dobiveni rezultati upućuju na važnost osnaživanja samokontrole, empatije i sposobnosti emocionalne inteligencije u radu s adolescentima.

Ključne reči: emocionalna inteligencija, empatija, temperament, agresivno ponašanje, adolescenti

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The relationship between emotional intelligence, empathy, and temperament and aggressive behavior in adolescents

Aggressive behavior among adolescents is becoming an increasing problem in modern society, so it is important to study the factors associated with it. The purpose of this study was to investigate the relationship between emotional intelligence, empathy, and certain aspects of temperament and aggressiveness among adolescents. Students from two secondary schools participated in the study ($N = 368$, 55% boys), aged 15 to 18 years ($M = 16.17$, $SD = 0.83$). In addition to demographic data, participants completed the Emotional Skills and Competencies Questionnaire, the E-questionnaire (emotional empathy subscale), the Early Adolescent Temperament Questionnaire, and the SNOP Child and Adolescent Aggression Scale (subscales Defiance and Opposition, Undesirable Behaviors, Victimization, and Bullying). Significant, albeit low, correlations were found between emotional intelligence, empathy, temperament, and aggression. Adolescents who scored lower on the overall emotional intelligence scale showed more defiance and opposition ($r = -.14$; $p < .05$). Lower self-rated ability to regulate and manage emotions was related to higher scores on the aggression scale ($r = -.18$; $p < .01$) and to more



pronounced undesirable behaviors ($r = -.12$; $p < .05$) and defiance and opposition ($r = -.27$; $p < .01$). Regarding empathy, adolescents with lower empathy reported higher scores on undesirable behaviors ($r = -.17$; $p < .01$) and more bullying (e.g., I spoke badly about others; $r = -.16$; $p < .01$) subscales. A low score on the self-control dimension was associated with higher overall aggressiveness ($r = -.19$; $p < .01$), but also with scores on the defiance and opposition ($r = -.33$; $p < .01$) and undesirable behaviors ($r = -.16$; $p < .01$) subscales. In addition, boys showed more aggressive behavior compared to girls when aggressiveness was considered as an overall score ($t(356) = 4.28$, $p < .01$, Cohen's $d = 0.46$), and they also showed more aggressive behavior on the Undesirable Behaviors subscales (e.g., I threatened or intimidated others.), Victimization (e.g., Other students insulted me in an ugly way.), and Bullying (e.g., I insulted others in an ugly way.). To examine the contribution of emotional intelligence, empathy, and temperament to explaining aggressiveness, we conducted five hierarchical regression analyzes. The model that allowed us to explain the largest percentage of variance (27.7%) was the one in which the Defiance and Opposition subscale was the criterion variable ($F(4, 339) = 32.50$, $p < .01$). The results show that adolescents with lower self-control ($\beta = -.21$), more pronounced negative affect ($\beta = .39$), and weaker ability to regulate and control emotions ($\beta = -.16$) are more likely to engage in aggressive behavior. The results indicate the importance of strengthening self-control, empathy, and emotional intelligence when working with adolescents.

Keywords: emotional intelligence, empathy, temperament, aggressive behavior, adolescents

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Moral intuitions and political orientation

There is a considerable amount of literature dealing with the issue of factors underlying political orientation. In addition to general sociodemographic characteristics and personality traits, most studies focus on specific values and beliefs as potential sources of left-right political orientation. In the last decade and a half, there has been a growing interest in the possible role of different moral intuitions in the prediction of ideological orientations. Moral foundations theory suggests that the moral domain comprises at least five moral intuitions related to harm, fairness, loyalty, authority, and purity. According to the authors, left-leaning individuals are primarily concerned with ethics of justice and care, whereas conservatives, in addition, value in-group loyalty, obedience to authority, and standards of purity. The findings of research conducted mainly in the United States and Western European countries largely confirm the supposed liberal-conservative differences in moral intuitions. However, it is also noted that there are certain cultural variations in the relationships between moral intuitions and political orientations.

The aim of the present research is to examine the incremental validity of the five moral intuitions over demographic factors in predicting left-right political orientation in a Serbian sample. The study was conducted on a sample of 207 participants (60.04% females), with an average age of 31.33 (SD= 10.59). In addition to the political self-placement item as a measure of political orientation and the self-reported religiosity item, the 10-item openness to experience scale (VP+2-70 questionnaire) and the Moral Foundations Questionnaire (MFQ-30) were applied.

The results of the first step of the hierarchical regression analysis ($R^2=.180$, $p<.000$) indicate that religiosity ($\beta= .357$, $p< .05$) and, to a lesser extent, openness to experience ($\beta= -.188$, $p< .05$), but not gender, are predictive factors for right-leaning self-positioning. In the second step ($R^2=.250$, $p<.000$), in addition to religiosity ($\beta= .246$, $p< .05$) and openness to experience ($\beta= -.148$, $p< .05$), loyalty ($\beta= .197$, $p< .05$) and purity ($\beta= .192$, $p< .05$) are shown to be correlated with a right-leaning political orientation. In a nutshell, the results provide additional evidence that the association of moral foundations with political orientation somewhat varies culturally.

Keywords: moral intuitions, political orientation, religiosity, openness to experience



PANEL DISKUSIJA
PANEL DISCUSSION



Da li škola može biti agens društvene promene? I zašto ne?

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Još Burdije (Bourdieu, 1974) opisuje jaz između dominantnog narativa o školi kao agensu društvene promene i dominantne prakse kroz koju škola deluje kao konzervirajuća sila, odnosno održava status quo u društvu. Međutim, pitanje “Da li škola može biti agens društvene promene?” nosi rizik od edukacionalizacije – smeštanja odgovornost za rešavanje obrazovnih, ali i širih društvenih problema, u školu i nastavnike (Hooge et al., 2011). Da bismo izbegli “zamku” edukacionalizacije, preformilisaćemo pitanje iz naslova i baviti se pitanjem: “Sa kojim ciljem, u kojim okolnostima i u kojoj meri škola može biti agens društvene promene?”

Šta pokreće školu da deluje? Kolektivne akcije koje vode društvenoj promeni nisu jednokratni, slučajni događaji, pre su rezultat promišljenog i dugotrajnog delovanja (Anyon, 2009). Prema Gencu (Ganz, 2011), značajnu ulogu u nastajanju i održavanju kolektivne akcije imaju narativi koji predstavljaju most između vrednosti i delovanja. Narativi koji mobilizuju zajednicu su oni narativi koji odgovaraju na pitanja zašto bih baš JA trebao/la da delujem, zašto bismo baš MI trebali delovati, i zašto je značajno delovati baš SADA (Ganz, 2011). Stoga, u okviru diskusije bavićemo se pitanjem koje teme, u ovom trenutku, imaju potencijal da okupe i pokrenu školsku zajednicu na kolektivnu akciju.

Šta utiče na delovanje škole? Škola je uronjena u složenu i nekoordinisanu mrežu uticaja na lokalnom, regionalnom, nacionalnom, ali i globalnom nivou, koji nisu uvek (čak najčešće nisu) podrška agensnosti škole (Fullan, 2000). Promene koje kreću od škole, nužno zahtevaju osveščivanje ograničenja i resursa za delovanje škole, ali i napore škole da ove činioce mobilizuje na način koji vodi promeni. Šta utiče na agensnost škole i kako je možemo podržati biće jedno od pitanja kojim ćemo se baviti u okviru diskusije.

U kojoj meri škola može biti agens društvene promene? Literatura ukazuje na ograničene domete promena koje kreću od nivoa škole ka gore, jer su one obično inicirane i usmerene na rešavanje lokalnih problema (Honig, 2004). Istovremeno, to pokreće pitanje: “Gde je “gore” u reformama odozdo na gore?” i “Da li promena u razumevanju “gore” menja potencijal škole da bude agens promene?” Okrugli sto će biti prilika za diskusiju o navedenim pitanjima između praktičara, istraživača i aktivista, sa ciljem da realističnije sagledamo prostore u kojima škola može delovati kao agens promene, ali i uloge i odgovornosti svakog od nas u ovom procesu.



RADIONICE
WORKSHOPS



Dvapat meri... Teorijski i praktični pristupi proceni invarijantnosti u R-u

Johannes Karl

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Istraživanja međukulturnih i međugrupnih razlika već dugo su aktuelna u psihologiji. Ipak, posmatrajući istorijski, mnogima od ovih poređenja nedostajala je metodološka strogost, što može ugroziti validnost rezultata. Stoga je neophodno da se ustanovi statistička jednakost pri međugrupnom poređenju konstrukata, kako bi se obezbedila uporedivost i adekvatnost mera koje se koriste.

Cilj ove radionice je da predstavi uvod u najvažnije metode međugrupnog poređenja u R-u, uključujući multigrupnu konfirmativnu faktorsku analizu u paketu „lavaan“ i procenu veličine efekta za neinvarijantne parametre. Ovi metodi osmišljeni su tako da pomognu istraživačima da ocene međukulturnu uporedivost psiholoških mernih instrumenata, u teorijskom i praktičnom smislu. Multigrupna konfirmativna faktorska analiza je statistički postupak koji se koristi u cilju procene jednakosti konstrukata u različitim grupama. Ona uključuje testiranje modela konfirmativne faktorske analize za svaku grupu odvojeno, i poređenje modela kako bi se utvrdilo da li je struktura mernih modela u grupama uporediva. Procena veličine efekta za neinvarijantne pokazatelje je noviji postupak čiji je cilj da kvantifikuje izraženost razlika između grupa kada struktura mernog modela nije jednaka. Ovaj metod može pomoći istraživačima da bolje razumeju prirodu i opseg razlika između grupa, čak i kada mere nisu neposredno uporedive.

Načelno, ova radionica nastoji da pruži učesnicima fundamentalne veštine za sprovođenje rigoroznih međukulturnih poređenja u psihologiji. Akcenat je na predstavljanju ključnih metoda za procenu jednakosti mera i za razumevanje praktičnih i teorijskih problema koji se javljaju u ovakvim istraživanjima. Očekuje se da će pohađanjem radionice učesnici steći solidno razumevanje metoda koji se koriste za međugrupna poređenja u R-u i važnosti statističke jednakosti za uporedivost psihometrijskih instrumenata među kulturama i grupama.

Be Mindful What You Measure: Theoretical and Practical Approaches to Invariance Testing in R

The study of cross-cultural and cross-group differences has been a long-standing topic in psychology. However, historically, many of these comparisons lacked rigor, which can undermine the validity of findings. Therefore, it is essential to establish statistical equivalence when comparing constructs across different groups to ensure the comparability and appropriateness of the measures.

This workshop aims to provide an introduction to the core methods for cross-group testing in R, including Multi-Group Confirmatory Factor Analysis in lavaan and effect size estimation for non-invariant parameters. These methods are designed to help



researchers evaluate the cultural comparability of psychometric measures, both theoretically and practically.

Multi-Group Confirmatory Factor Analysis is a statistical method used to assess the equivalence of constructs across different groups. It involves fitting a confirmatory factor analysis model separately to each group and comparing the models to determine whether the measurement structure is comparable across the groups. Effect size estimation for non-invariant parameters is a newer method that aims to quantify the magnitude of differences between groups when the measurement structure is not equivalent. This method can help researchers better understand the nature and size of differences between groups, even when the measures are not directly comparable.

Overall, this workshop seeks to provide participants with a foundation for conducting rigorous cross-group comparisons in psychology. The focus is on introducing key methods for assessing measurement equivalence and understanding the practical and theoretical challenges involved in this type of research. By the end of the workshop, participants should have a solid understanding of the methods used for cross-group testing in R and the importance of statistical equivalence in ensuring the comparability of psychometric measures across cultures and groups.



Topologija pop kulture i psihologija dizajna video igara - Stvaranje stvarnog narativa u okviru nestvarnih prostora

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Dizajn video igara a posebno narativni dizajn podrazumeva shvatanje i uključivanje psiholoških elemenata popularne kulture. Kao geografska topografija, topografija pop kulture takođe segmentira ova saznanja i definiše ih kao operativne elemente koji mogu da se koriste u stvaranju narativa. Radionica će predstaviti iste mehanizme, kao i psihološke procese koji stoje iza njih. Takođe, ovo će se dogoditi tokom aktivne primene mehanizama i generisanja okvirnog narativa za moguću video igru.

The Topology of Pop Culture and the Psychology of Video Game Design - Creating Real Narratives within Imaginary Spaces

Video game design, especially narrative design, involves understanding and incorporating psychological elements of popular culture. Like a geographical landscape, the topology of pop culture also segments this knowledge and defines it as operational elements that can be used in creating narratives. The workshop will present these mechanisms, as well as the psychological processes behind them. Additionally, this will occur through the active application of these mechanisms and the generation of a framework narrative for a potential video game.



Opažanje kvaliteta staranja kroz praćenje igre roditelja i dece

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Koncept podsticajne nege pretpostavlja da je, da bi dete dostiglo svoj puni potencijal, neophodno obezbediti pet elemenata podsticajne nege: dobro zdravlje, adekvatnu ishranu, bezbednost i sigurnost, responzivno staranje i mogućnosti za učenje kroz igru. Iako su ove komponente međusobno tesno povezane i međuzavisne, u okviru ove radionice bavićemo se jednom od njih koja je suštinska potka svih aspekata kvalitetnog staranja – responzivnim staranjem kao dimenzijom kvaliteta interakcije roditelja i deteta. Responzivnost roditelja odnosi se na veštinu roditelja da pravilno i uvremenjeno opaža i tumači signale deteta, a zatim na njih adekvatno reaguje podstičući i podržavajući inicijativu i interesovanje deteta. Ovakve interakcije koje donose zadovoljstvo i za dete i za roditelja, omogućavaju uspostavljanje emocionalne veze među njima, koja će biti osnova za detetovo upoznavanje i razumevanje sveta koji ga okružuje, i za učenje o ljudima i međuljudskim odnosima. Ovakve socijalne interakcije stimulišu i razvoj mozga tokom ranog detinjstva. Responzivno staranje obuhvata posmatranje i reagovanje na dečje pokrete, zvuke, gestove i verbalne signale. Kao takvo, ono je osnova za obezbeđivanje sigurne okoline i zaštitu deteta od povreda i nepovoljnih iskustava, uključujući i uvremenjeno prepoznavanje znakova bolesti, kao i obezbeđivanje okruženja i prilika za učenje i izgradnju poverenja u socijalnim odnosima.

Tokom ove radionice, učesnici će imati prilike da se upoznaju sa konceptom responzivnog staranja – koji su to signali koje dete upućuje, na primer, signali za glad ili sitost, emocionalnu uznemirenost, zainteresovanost za igru ili zadovoljstvo – a zatim i šta znači adekvatno opažanje i razumevanje detetovih signala, a šta adekvatno reagovanje na te signale. Govorićemo o tome kako profesionalci, u svojim različitim ulogama, mogu podržati i podstaći roditelje/staratelje da identifikuju i koriste svakodnevne aktivnosti i rutine za interakciju, komunikaciju i igru sa svojim detetom. Posebna pažnja biće posvećena igri roditelja i deteta, kao ključnim kontekstom za rast i razvoj deteta u prvim mesecima i godinama života. Učesnici će imati prilike i da analiziraju indikatore responzivnosti u različitim igrovnim situacijama i interakcijama roditelja i deteta i da diskutuju o značaju ovakve nege za pravilan rast i razvoj deteta.

Perception of the quality of care through monitoring the play of parents and children

The concept of Nurturing care assumes that in order for a child to reach their full potential, it is necessary to provide five key aspects of nurturing care: good health, adequate nutrition, safety and security, responsive care and opportunities for learning through play. Although these components are closely related and interdependent, within this workshop we will deal with one of them which is the key element of quality



child care in whole - responsive care as a dimension of the quality of parent-child interaction. Responsiveness refers to the parent's skill to correctly and timely perceive and understand the child's signals, and then respond to them adequately, encouraging and supporting the child's initiative and interest. Such interactions, which bring satisfaction to both the child and the parent, enable the establishment of an emotional bond between them, which will be the basis for the child's learning and understanding of the world around him, and for learning about people and interpersonal relationships. Such social interactions also stimulate brain development during early childhood. Responsive care involves observing and responding to the child's movements, sounds, gestures and verbal signals. As such, it is the basis for providing a safe environment and protecting the child from injury and adverse experiences, including timely recognition of signs of illness, as well as providing an environment and opportunities for learning and building trust in social relationships.

During this workshop, participants will have the opportunity to become familiar with the concept of responsive care - what are the signals that the child sends, for example, signals for hunger or satiety, emotional distress, interest in play or pleasure - and then what it means to perceive adequately and understand the child's signals, and what is the adequate response. We will talk about how professionals, in their various roles, can support and encourage parents/caregivers to identify and use everyday activities and routines to interact, communicate and play with their child. Special attention will be paid to parent-child play, as a key context for the child's growth and development in the first months and years of life. Participants will also have the opportunity to analyze the indicators of responsiveness in different play situations and parent-child interactions and to discuss the importance of responsiveness for the proper growth and development of the child.



Kako ova priča počinje... ili kako se završava? Dinamičko pripovedanje kao metodološki pristup istraživanju inkluzivnog obrazovanja

Olja Jovanović i Tinde Kovač Cerović

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Pripovedanje je ljudska aktivnost koja postoji koliko postoji i jezik. To je aktivnost sa kojom svi imamo iskustva, jer je koristimo kada želimo da ispričamo prijatelju šta nam se danas desilo, kada nepoznatoj osobi želimo da kažemo ko smo mi, kada deci pričamo priču pred spavanje... Istraživanja koja koriste pripovedanje polaze od pretpostavke da je pripovedanje delovanje – kroz pripovedanje mi se povezujemo sa drugim ljudima, učimo da se nosimo sa društvenim strukturama koje oblikuju naše živote, dajemo smisao svetu oko nas, tražimo način da se uklopimo u okruženje, a ponekada i da ga



promenimo. Iskustva, vrednosti i norme koje stičemo i negujemo tokom života utiču šta će biti vidljivo u našim narativima i koji smisao ćemo dati elementima našeg narativa (likovima, zapletima, razrešenjima), što postaje posebno značajno kada se bavimo osetljivim temama kakvo je inkluzivno obrazovanje.

Sam naziv pristupa pripoveda o njegovim polazištima. “Dinamičko” se odnosi na gledište da ljudsko razumevanje sveta uvek nastaje iz interakcije, dok se “pripovedanje” odnosi na to da je značenje određene aktivnosti uvek relaciono, u odnosu na lične i kolektivne istorije i očekivanja. Dinamičko pripovedanje kao metodološki pristup teži da uključi učesnike u različite ekspresivne aktivnosti iz različitih uloga, sa različitim ciljem i za različite publike. Priče koje nastaju kroz ovaj proces integrišu perspektive pojedinaca i grupa koje imaju različita iskustva, znanja, ciljeve i moć.

Tokom radionice predstavimo aktivnosti dinamičkog pripovedanja koje smo koristile u različitim istraživanjima, između ostalog istraživanje integriteta inkluzivnog obrazovanja, inkluzivnosti lokalnih zajednica, razvoja profesionalnog identiteta romskih asistenata, i obrazovnih iskustava učenika tokom pandemije Kovid-19. Takođe, u okviru radionice ćemo predstaviti i diskutovati različite pristupe analizi podataka koji nastaju kroz dinamičko pripovedanje.

How does the story begin... or end? Dynamic storytelling as a methodological approach for exploring inclusive education

Research with narrating builds on practices of daily life, where people use storytelling to do things — to connect with other people, to deal with social structures defining their lives, to make sense of what is going on around them, to craft a way of fitting in with various contexts, and sometimes to change them. Experiences, values and norms that people gain and hold in everyday life guide what they choose to mention in each narrative appropriate to the purpose, audience, and situation, which is particularly important when dealing with sensitive topics such as inclusive education.

“Dynamic” refers to the fact that people’s understandings of social situations are interactive processes, while “story” refers to the fact that the meanings of activities occur in relation to personal and collective histories and expectations. The dynamic storytelling design aims at engaging participants in different expressive activities from different relational positions, for different purposes, and with different intended audiences. In this process, stories integrate the perspectives of diverse individuals and groups with varied influence, experience, knowledge, and goals.

During the workshop, we will present dynamic storytelling activities which we have been using for different purposes, exploring the integrity of inclusive education, inclusiveness of local communities, development of a professional identity of Roma assistants, and educational experiences of students during the COVID-19 pandemic. Moreover, different approaches to analysis will be presented and discussed.



TRANSFEROV PODSKUP
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PLENARNA PREDAVANJA PLENARY LECTURES

Pomirenje kao ultimativni cilj bez značenja: konceptualizacija međugrupnog pomirenja na primeru Bosne i Hercegovine

Tijana Karić

Philipps University Marburg

U postkonfliktnim društvima, pomirenje između strana prethodno uključenih u konflikt predstavlja jedan od najvažnijih ciljeva, kojim se bave različiti akteri. Međutim, iako se postavlja kao ultimativni cilj, i veliki broj istraživanja se bavi ovom temom, značenje koncepta pomirenja nije jasno definisano. Ovo može da predstavlja problem jer – ako ne znamo tačno šta je, kako ćemo znati da li je postignuto?

Tokom ovog predavanja biće predstavljena serija od pet studija sprovedenih u kontekstu Bosne i Hercegovine, koje se bave konceptualizacijom pomirenja i faktorima koji na njega utiču. U studijama su primenjene različite metodologije: kvalitativna (fokus grupe), kvantitativna (korelacione studije), i mešani metod (Q metodologija). Takođe, primenjene su različite analize kako bi se približilo razumevanju koncepta pomirenja – ne uvek sa uspehom. Diskutovaću nalaze u okviru postojećih (malobrojnih) teorijskih pristupa pomirenju, ali i brojne izazove u definisanju jednog tako složenog koncepta.

Reconciliation as the Ultimate Goal Without Meaning: Conceptualization of Intergroup Reconciliation on the Example of Bosnia and Herzegovina

In post-conflict societies, reconciliation between parties previously involved in conflict is one of the most important goals pursued by various actors. However, although it is set as the ultimate goal, and a large amount of research deals with this topic, the meaning of the concept of reconciliation is not clearly defined. This can be a problem because - if we don't know exactly what it is, how will we know if it has been achieved? During this lecture, a series of five studies conducted in the context of Bosnia and Herzegovina will be presented, which deal with the conceptualization of reconciliation and the factors that influence it. Different methodologies were applied in the studies: qualitative (focus groups), quantitative (correlation studies), and mixed method (Q methodology). Also, various analyses have been applied to explore the understanding of the concept of reconciliation - not always with success. I will discuss



findings within the existing (few) theoretical approaches to reconciliation, but also numerous challenges in defining such a complex concept.

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RADIONICE WOKSHOPS

Kakve su to šeme dovele do mojih šema?

dr Tijana Mirović

Psihološko savetovalište Mozaik

Centar za shema terapiju Beograd

Svi mi imamo neke probleme o koje se stalno saplićemo! Svi mi imamo ono „pa ne mogu da verujem da opet...“. Svi mi imamo neki svoj „tip“ osoba sa kojima se stalno saplićemo; osoba sa kojima se vrtimo u krugu odnosno u onom kolu u kom dadosmo sve da uđemo, a još više da izađemo... pa onda, k'o da ništa nije bilo, opet damo sve da se ipak ponovo u njega vratimo i zaigramo još taj jedan krug „jer će sada sve biti drugačije“. A ne bude... naravno!

Svi dakle, imamo te neke sheme koje prave probleme i dileme. Cilj ove radionice je da ih malo bolje upoznamo, pa samim tim možda malo i pomerimo. U dva sata koliko je pred nama zajedno ćemo da tragamo za odgovorima na pitanja kao što su: Šta su sheme? Zašto ih imamo? Kako te sheme nastaju? Zašto se tako teško menjaju, odnosno mogu li uopšte da se menjaju i kako? !

Ozbiljnijim akademskim rečnikom rečeno, tokom radionice imaćemo priliku da se upoznamo sa osnovnim postulatima Shema terapije – jednim integrativnim psihoterapijskim pristupom čiji je tvorac Džefri Jang. Razvijajući Shema terapiju, Jang je integrisao najbolje iz raznih psihoterapijskih pristupa sa ciljem da napravi visoko efikasan terapijski pristup koji bi tretirao razvojnu i kompleksnu traumu, odnosno pomagao klijentima da zadovolje nezadovoljene bazične (razvojne) potrebe kroz promenu dugotrajnih i ponavljajućih kognitivnih, emocionalnih, interpersonalnih i bihejvioralnih obrazaca. !

What kind of schemas led to my schemas?

We all have some issues that we keep stumbling upon! We all have those "well I can't believe that once again I..." moments. We all have a specific "type" of people that attract yet trigger us. People who have us running in circles - in a kind of circle we wanted to be a part of but ended up needing to get out as soon as possible. Then, once out, we couldn't wait to go back in believing that "everything would be different now". We rush get back in only to discover that nothing has changed (of course)!



So, we all have some schemas that cause problems and dilemmas. The goal of this workshop is to get to know these schemas a bit better, so that we could start learning to control them. In the hour and a half ahead of us, we will look for answers to questions such as: What are schemas? Why do we have them? Where do these schemas come from? Why are they so difficult to change or can they be changed and how?

Put in a more serious academic language, during the workshop we will have the opportunity to get acquainted with the basic postulates of Schema Therapy - an integrative psychotherapeutic approach created by Jeffrey Young. Developing Schema Therapy, Young integrated the best of various psychotherapy approaches with the goal of creating a highly effective therapeutic method that could treat developmental and complex trauma;; a method that could help clients meet unmet basic (developmental) needs by changing long-term and repetitive cognitive, emotional, interpersonal and behavioral patterns.

Samopouzdanje kod osoba sa invaliditetom

Tatjana Stojšić Petković

Psihološkinja Tatjana Stojšić Petković poseduje dugogodišnje iskustvo u radu sa ženama koje imaju invaliditet i putem ove radionice imaće priliku da isto podeli sa učesnicima. Poseban akcenat biće stavljen i na oblast samopouzdanja, te će učesnici imati priliku da nauče tehnike osnaživanja i specifičnosti u radu sa osobama sa invaliditetom.

Self-confidence in people with disabilities

Psychologist Tatjana Stojšić Petković has many years of experience in working with women with disabilities, and through this workshop she will share her experience with the participants. Special emphasis will be placed on the area of self-confidence and participants will have the opportunity to learn empowerment techniques and specifics in working with people with disabilities.



SEKCIJE USMENIH IZLAGANJA ORAL SECTIONS

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Povezanost fenomena psihološke distance sa proekološkim aktivizmom građana Srbije

Srbija već nekoliko godina unazad prednjači na listi zemalja sa najvećim indeksom zagađenosti vazduha u svetu. Iz tog razloga je veoma važno istražiti faktore koje pojedince motivišu na proekološki aktivizam, ali i pronaći dugoročna rešenja za brojne ekološke probleme. Prethodne studije su ispitivale da li je nedostatak proekološkog aktivizma uzrokovan opažanjem efekata i posledica klimatskih promena kao psihološki udaljenih, i to u nekoliko aspekata. U istraživanju koje sledi, proučavali smo četiri dimenzije psihološke distance koristeći postavke Construal Level teorije (u daljem tekstu CLT): prostornu ili geografsku distancu, vremensku distancu, socijalnu distancu i verovatnoću (koliko je izvesno da li će se neki događaj odigrati ili ne). Proekološki aktivizam operacionalizovali smo kao volontiranje u organizacijama, otvoreno izražavanje mišljenja, učešće u ekološkim protestima i potpisivanje peticija u vezi sa aktuelnim ekološkim pitanjima. Pored toga, socio-demografske (uzrast, obrazovanje, socio-ekonomski status, pol i religija) i socio-psihološke varijable (socijalni konzervativizam i poverenje u institucije), uključene su kao potencijalni faktori u predviđanju dosadašnjeg proekološkog aktivizma. Analizirali smo podatke nacionalno reprezentativnog uzorka punoletnih građana Srbije (N=1199), prikupljenih metodom licem u lice od strane Instituta za političke studije tokom juna i jula meseca 2022. godine. Rezultati regresione analize pokazali su da nivo obrazovanja, uz socijalni konzervativizam, značajno predviđa proekološki aktivizam. Kada je reč o dimenzijama psihološke distance, geografska i vremenska distanca izdvojile su se kao značajni prediktori ($R^2 = .065$; $F=5.382$; $p=.000$). Sa jedne strane, došli smo do očekivanih nalaza - što je ekološka pretnja bliža i izvesnija, veća je verovatnoća da će ljudi biti proekološki aktivni. Međutim, ono što je iznenađujuće je da građani Srbije ispoljavaju proekološki aktivizam čak i kada se radi o ekološkim pretnjama u udaljenim područjima, što je u



suprotnosti sa nalazima dobijenim u Zapadnim zemljama. Verujemo da ovakvi nalazi imaju potencijal da skrenu pažnju na važne faktore u promovisanju budućih proekoloških akcija i proekološke svesnosti građana Srbije, a samim tim i podstaknu ljude na konkretno delanje po pitanju ublažavanja klimatskih promena.

Ključne reči: Psihološka distanca, ekološki aktivizam, proekološko ponašanje, klimatske promene, socijalni konzervativizam

Zahvalnica: Zahvalnica: Institutu za političke studije u Beogradu na ustupanju baze podataka odnosno statističkih analiza iste.

Relating Psychological Distance of Environmental Threats to Ecological Engagement in Serbia

Serbia is the country with one of the highest air pollution indexes in the world. Therefore it is essential to explore factors of citizens' ecological engagement, since long-term actions by the general population are necessary to solve numerous environmental problems. Previous studies have examined whether the lack of ecological engagement was caused by the perception that climate change effects and consequences as psychologically distant, measured in several aspects. We studied four dimensions of psychological distance following Construal Level Theory (CLT): spatial or geographical distance, temporal distance, the distance between a perceiver and social target (another individual or group) and hypotheticality (certainty of whether some event will happen or not). We operationalized ecological engagement as volunteering in organizations, openly expressing one's opinions, participating in ecological protests and signing petitions regarding ecological issues. In addition, socio-demographics (i.e. age, education, SES, gender, religion) and socio-psychological variables (social conservatism and trust in institutions) were included as potential factors in predicting past pro-ecological behaviour. We analyzed data from a national representative sample of Serbian adults (N=1199) conducted face to face by the Institute for political studies (June/July of 2022).

The results of regression analysis revealed that educational level, along with conservatism, predicts pro-ecological engagement. Among the psychological distance indicators, geographic and temporal distance positively predict pro-ecological action ($R^2=.065$; $F=5.382$; $p<.000$). Expectedly, the closer and actual people perceive an environmental threat, the more likely they will act pro-ecologically. On the other hand, surprisingly, results from Serbia showed that the more people are concerned about the environment (geographically distant areas), even in remote locations, the more they will act pro-ecological, contradictory to the findings from the Western countries (where data showed that people are not prepared to act nor are concerned regarding the distant regions). The results could illuminate some potential factors that could promote



people's ecological actions and beliefs and lead to help motivate and focus people's attention on mitigating climate change issues.

Keywords: Psychological distance, ecological engagement, climate change, social conservatism



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Percepcija psihološke distance prema pitanjima klimatskih promena i zagađenja vazduha u Srbiji

Problem klimatskih promena i zagađenja vazduha predstavlja ključno egzistencijalno pitanje koje zahteva hitne mere, koje bi omogućile kako poboljšanje postojećeg stanja, tako i obezbeđivanje bezbedne, globalno zdravije budućnosti. Negiranje značaja i odbacivanje pitanja klimatskih promena i zagađenja vazduha, potencijalno bi moglo imati ozbiljne posledice po stanovništvo kako u svetu, tako i u Srbiji. Psihološka distanca je jedan od najšire korišćenih konstrukata za objašnjavanje percepcije klimatskih promena i zagađenja vazduha. To je multidimenzionalni konstrukt koji obuhvata 4 dimenzije, prema Construal level theory – (CLT): geografsku distancu, vremensku distancu, socijalnu distancu i neizvesnost. Shodno tome, pozivajući se na različite distance predviđene teorijom, ljudi oblikuju percepciju ekološke pretnje. Istraživanja pokazuju da se psihološka distanca može koristiti za tumačenje nalaza da ljudi percipiraju klimatske promene kao psihološki udaljene i odbacuju značaj ovih problema za okruženje u kome žive. Cilj našeg istraživanja je da ispitamo koliko psihološki udaljeno ljudi doživljavaju pitanja klimatskih promena i zagađenja vazduha u Srbiji. Koristili smo podatke nacionalno reprezentativnog uzorka odrasle populacije u Srbiji (N=1199), sprovedenog u Institutu za političke studije (jun/jul 2022). Rezultati su otkrili da se klimatske promene generalno percipiraju kao psihološki udaljenije od zagađenja vazduha ($t(880)=13.696$), ($p=.000$). Analizirajući različite indikatore psihološke distance odvojeno, podaci su pokazali da se zagađenje vazduha sistematski percipira psihološki manje udaljenim od klimatskih promena; iako se statistička značajnost javlja samo u indikatorima geografske bliskosti ($t(1056)=24.688$), ($p=.000$) i izvesnosti ($t(952)=8.24$), ($p=.000$) kao distinktivne za zagađenje vazduha i klimatske promene. Jasno je da se zagađenje vazduha doživljava kao geografski bliži i izvesniji ekološki izazov za odraslu populaciju Srbije, te stoga zahteva brže reagovanje. Da bi se povećala svest javnosti o temama životne sredine, trebalo bi češće komunicirati teme zagađenja vazduha nego klimatskih promena.



Ključne reči: klimatske promene, zagađenje vazduha, psihološka distanca, životna sredina

Zahvalnica: Zahvaljujemo Institutu za političke studije na ustupanju baze podataka i ovlašćenju za analizu ovih podataka. / We thank Institute for Political Studies for providing the database and authorization for analyzing this data.

Perceived Psychological Distance of the Issues of Climate Change and Air Pollution in Serbia

The problem of climate change and air pollution is a vital existential issue that requires urgent measures, which would enable both the improvement of the current situation and the provision of a safe, globally healthier future. Denying the importance and dismissing the issue of climate change and air pollution could potentially have serious consequences for the population both in the world and in Serbia. Psychological distance is one of the most widely used constructs to explain the perception of climate change and air pollution. It is a multidimensional construct that includes 4 dimensions, according to Construal level theory (CLT): geographical distance, temporal distance, social distance and uncertainty. Accordingly, by referring to the different distances predicted by the theory, people shape the perceptual prism of environmental treat. Research shows that psychological distance can be used to interpret findings that people perceive climate change as psychologically distant, and dismiss the importance of these problems to the environment where they live. The goal of our research is to examine how psychologically distant people perceive climate changes and air pollution in Serbia. We used data from the nationally representative sample of the adult population in Serbia (N=1199), conducted by the Institute for political studies (June/July of 2022). Results revealed that climate change is perceived as more psychologically distant in general than the air pollution ($t(880)=13.696$), ($p=.000$). Analyzing different indicators of psychological distance separately, data revealed the air pollution is perceived less psychologically distant than climate change systematically; although statistical significance emerged only in terms of geographic closeness ($t(1056)=24.688$), ($p=.000$) and certainty ($t(952)=8.24$), ($p=.000$) as distinctive for the air pollution and climate change. It is clear that the air pollution is perceived as geographically closer and more certain environmental challenge for adult Serbian population, therefore might require faster action. In order to enhance the awareness of public to environmental topics, issues of air pollution should be communicated more often than climate change issues.

Keywords: climate change, air pollution, psychological distance, environment

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Predikcija odnosa među braćom i sestrama osobinama ličnosti iz prostora upitnika HEXACO

Prethodna istraživanja ukazuju na to da brojni socioekonomski i porodični faktori mogu uticati na odnos između braće i sestara. Cilj ovog istraživanja bio je istražiti da li osobine ličnosti predviđaju kvalitet odnosa među braćom i sestrama. U istraživanju je učestvovalo 352 para braće i sestara, čija je razlika u godinama ne viša od 4 godine. U uzorku starije braće i sestara bilo je 241 žena i 111 muškaraca, a u uzorku mlađih 222 žene i 130 muškaraca. Korišćeni su HEXACO upitnik ličnosti (poštenje, emocionalnost, ekstraverzija, prijatnost, savesnost i otvorenost ka iskustvu) i Upitnik odnosa među braćom i sestrama (ASRQ; toplina i konflikt). Testirani su modeli predikcije zasebno na starijem i mlađem bratu/sestri u paru, kao i potencijalni efekti pola. Rezultati ukazuju na to da toplinu kod starijeg brata/sestre ($F(67)=10.69$; $p<.001$) značajno predviđaju ekstraverzija ($\beta=.316$; $p<.001$) i savesnost ($\beta=.133$; $p<.01$), a kod mlađeg brata/sestre ($F(7)=8.821$, $p<.001$) poštenje ($\beta=.268$; $p<.001$) i ekstraverzija ($\beta=.193$; $p<.001$). Dok kod starijih sestara imaju izraženiju toplinu, kod mlađih ne postoje polne razlike. Kada je u pitanju dimenzija konflikata, kod starijih braće/sestara ($F(7)=9.103$, $p<.001$) značajni prediktori su nisko poštenje ($\beta=-.171$; $p<.01$), ekstraverzija ($\beta=-.116$; $p<.05$), prijatnost ($\beta=-.191$; $p<.001$) i savesnost ($\beta=-.152$; $p<.01$), a kod mlađih ($F(7)=5.718$, $p<.001$) nisko poštenje ($\beta=-.226$; $p<.001$) i savesnost ($\beta=-.135$; $p<.01$). Ne postoje polne razlike kod odnosa konflikta. Rezultati ukazuju na potencijalno različite osobine ličnosti koje su prediktori odnosa među braćom i sestrama u odnosu na njihov redosled rođenja, ali i pol starijeg deteta, kod odnosa topline.

Ključne reči: HEXACO, braća i sestre, toplina, konflikt, redosled rođenja

Prediction of sibling relationships by personality traits from the HEXACO model

Previous research suggests that several socioeconomic and family factors could influence the relationship between siblings. This research aimed to investigate whether personality traits predict the quality of relationships between siblings. 352 pairs of brothers and sisters, whose age difference is no more than 4 years, participated in the research. There were 241 women and 111 men in the sample of older siblings, and 222 women and 130 men in the younger sample. The HEXACO personality questionnaire (honesty, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience) and the Sibling Relationship Questionnaire (ASRQ; warmth and conflict) were used. The prediction models were tested separately on the older and younger sibling in the pair, as well as the potential effects of gender. The results indicate that



warmth in the older sibling ($F(67)= 10.69$; $p<.001$) is significantly predicted by extraversion ($\beta=.316$; $p<.001$) and conscientiousness ($\beta=.133$; $p<.01$), and in the younger sibling ($F(7)=8.821$, $p<.001$) with honesty ($\beta=.268$; $p<.001$) and extraversion ($\beta=.193$; $p<.001$). While older sisters have a more pronounced warmth, there are no gender differences in younger ones. When it comes to the conflict dimension, in older siblings ($F(7)=9.103$, $p<.001$) significant predictors are low honesty ($\beta=-.171$; $p<.01$), extraversion ($\beta=-.116$; $p<.05$), agreeableness ($\beta=-.191$; $p<.001$) and conscientiousness ($\beta=-.152$; $p<.01$), and in younger ($F(7)=5.718$, $p<.001$) low honesty ($\beta=-.226$; $p<.001$) and conscientiousness ($\beta=-.135$; $p<.01$). There are no gender differences concerning the conflict. The results indicate potentially different personality traits that are predictors of the relationship between siblings concerning their birth order, but also the gender of the older child, in relation to warmth.

Keywords: HEXACO, siblings, warmth, conflict, birth order



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Stavovi studenata psihologije prema obrazovanju pre i nakon slušanja kursa Osnovi pedagoške psihologije

Stavovi, kroz svoju kognitivnu i emocionalnu komponentu, mogu da utiču na odnose koje osoba gradi sa svojim okruženjem. Ciljevi istraživanja su: 1. ispitivati stavove studenata psihologije u Kragujevcu o obrazovanju i ulozi koju školski psiholog ima u obrazovnom sistemu pre i posle kursa Osnovi pedagoške psihologije i 2. proveriti koje faktore sa ovog kursa studenti ističu kao razlog za promenu stava o obrazovanju i ulozi školskog psihologa. Metod za prikupljanje podataka bili su eseji koje su studenti pisali na prvom i poslednjem predavanju. Uzorak čini 20 studenata. Nakon analize eseja, izdvojilo se 6 faktora za koje studenti smatraju da su najbitniji za formiranje i/ili promenu stava, a to su: praktična nastava/studijska poseta, interaktivna nastava na predavanjima i vežbama usmerena na primenu, opšta atmosfera na časovima, nova saznanja o obrazovanju, kompetencijama i značaju školskog psihologa, saznanja o razvojnim teškoćama dece i njihovom rešavanju, lični rast i razvoj. Rezultati pokazuju da je 90% ispitanika istaklo nova saznanja i značaj predavanja i vežbi usmerenih na primenu naučenog kao najbitnije faktore za promenu stava nakon odslušanog kursa. 50% ispitanika navelo da im je kurs doprineo ličnom rastu, njih 55% je zadržalo pozitivan stav o obrazovanju, a 45% je promenilo stav iz negativnog u pozitivan. Može se zaključiti da omogućavanje isprobavanja i primene novostečenog znanja tokom samog kursa Osnove pedagoške psihologije može biti značajan faktor za izgradnju i/ili očuvanje pozitivnog stava prema obrazovanju i ulozi školskog psihologa kod studenata. Ova



saznanja mogu biti od koristi u unapređenju pedagoške prakse kako u univerzitetskom, tako i u douniverzitetskom obrazovanju, te pružaju perspektivu za dalje istraživanje stavova studenata u oblasti psihologije obrazovanja.

Ključne reči: obrazovanje; pedagoška psihologija; uloga školskog psihologa: stavovi; studenti psihologije.

Student attitudes towards education before and after taking the Introduction of Educational Psychology Course

Attitudes, through their cognitive and emotional components, can influence the relationships individuals build with their environment. The research objectives are: 1. to examine the attitudes of psychology students in Kragujevac towards education and the role that school psychologists play in the educational system before and after the course of the Introduction of Educational Psychology, and 2. to assess which factors from this course students highlight as reasons for changing their attitude towards education and the role of school psychologists. The data collection method involved essays written by students during the first and last lectures. The sample consisted of 20 students. After analyzing the essays, six factors were identified as most important for forming and/or changing their attitudes. These factors include: practical training/study visits, interactive teaching in lectures and exercises focused on application, overall classroom atmosphere, new knowledge about education and the competencies and significance of school psychologists, understanding developmental difficulties in children and their resolution, and personal growth and development. The results indicate that 90% of the respondents emphasized new knowledge and the significance of lectures and exercises focused on applying what they have learned as the most crucial factors for attitude change after completing the course. 50% of the participants stated that the course contributed to their personal growth, 55% maintained a positive attitude towards education, and 45% shifted from a negative to a positive attitude. It can be concluded that allowing students to experiment with and apply newly acquired knowledge during the Introduction of Educational Psychology course can be a significant factor in building and/or maintaining a positive attitude towards education and the role of school psychologists. These findings can be useful for improving pedagogical practice in both university and pre-university education and provide a perspective for further research on student attitudes in the field of educational psychology.

Keywords: education; educational psychology; role of school psychologists; attitudes; psychology students.

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Provera hijerarhijske strukture bazičnih osobina ličnosti u latentnom prostoru upitnika BFI-2, HEXACO i VP+2

Osnovna pretpostavka Digmanovog “modela” hijerarhijske strukture ličnosti sugerise da se na hijerarhijski najvišem nivou nalaze Alfa i Beta faktori. Alfa faktor čine Savesnost, Prijatnost i Neuroticizam, dok Beta faktor čine Ekstraverzija i Otvorenost. Na hijerarhijski nižem nivou, Beta faktor ostaje nepromenjen, dok se Alfa faktor raščlanjuje na Neuroticizam i Dezinhibiciju - koja obuhvata Savesnost i Prijatnost. Kasnija istraživanja pokazala su određena odstupanja u pogledu sadržaja Alfa i Beta faktora, prevashodno u pogledu statusa dimenzije Neuroticizma. Osnovni problem ovog istraživanja predstavlja provera Digmanovih pretpostavki o hijerarhijskoj strukturi ličnosti u zajedničkom prostoru upitnika BFI-2, HEXACO-60 i VP+2, i pružanje dodatnog uvida u status dimenzije Neuroticizma u okviru te strukture.

Uzorak ispitanika činilo je 627 osoba, od kojih je 346 ispitanica (55.2%). Starost ispitanika se kretala u rasponu od 18 do 83 godina ($AS = 32.6$, $SD=14.37$). Ispitanici su za potrebe ovog istraživanja popunjavali upitnike BFI-2 (60 stavki), HEXACO-60 i VP+2 (70stavki). Sa ciljem da se proveri hijerarhijska struktura bazičnih osobina, sprovedene su ukupno tri hijerarhijske eksplorativne faktorske analize (HEFA). U prvu analizu su uključene sve dimenzije sva tri upitnika, pri čemu je paralelna analiza ukazala na petofaktorsko rešenje. Naredne dve analize su sprovedene nad pet dimenzija iz prethodnog rešenja, uz primenu teorijskog kriterijuma sa tri i dva faktora na višim nivoima hijerarhije.

Rezultati prve HEFA replicirali su četiri dimenzije Velikih pet – Ekstraverzija (sa Pozitivnom valencom), Neuroticizam, Otvorenost ka iskustvu i Savesnost (sa Poštenjem). Peta dimenzija, niska Prijatnost, obuhvatala je dimenziju Agresivnost, Negativnu valencu i dimenzije Prijatnosti sa negativnim opterećenjima. Naredna HEFA sprovedena je nad pet dimenzija, sa trofaktorskim rešenjem kao teorijskim kriterijumom. Ovo rešenje podudaralo se sa Digmanovom pretpostavkom. Poslednja HEFA urađena je nad dimenzijama trofaktorskog rešenja, sa zadata dva faktora, u skladu sa teorijskim kriterijumom. Ona je pokazala da dimenzija Neuroticizam ima visoke korelacije i sa Alfa i sa Beta dimenzijom, što je saglasno sa novijim istraživanjima, ali ne i sa Digmanovim originalnim pretpostavkama. Potencijalno objašnjenje rezultata koji odstupaju od Digmanovih pretpostavki se odnosi na konceptualizaciju Neuroticizma, odnosno Emocionalnosti unutar upitnika HEXACO, koja odražava internalizovane aspekte neuroticizma, a to je moglo uticati na to da se cela dimenzija koju čine dimenzije Neuroticizma ipak pripoji Beta faktoru.

Ključne reči: Hijerarhijska struktura ličnosti, Alfa i Beta faktori, BFI-2, VP+2, HEXACO



Replication of hierarchical structure of personality traits within latent space of BFI-2, HEXACO, AND VP+2 questionnaires

The base assumption of Digman's "model" of the hierarchical structure of personality suggests that, Alpha and Beta factors are found on the highest level of hierarchy. The alpha factor is comprised of Conscientiousness, Agreeableness, and Neuroticism, while the Beta factor is comprised of Extraversion and Openness to experience. On a lower level of the hierarchy, the Beta factor is unchanged, while the Alpha factor divides into Neuroticism and Disinhibition, which encompasses Conscientiousness and Agreeableness. Later studies have shown certain discrepancies relating to the contents of Alpha and Beta factors, mainly considering the status of the dimension Neuroticism. The main goal of this study was the replication of Digman's assumptions considering the hierarchical structure of personality inside a space shared by BFI-2, HEXACO-60, and VP+2 questionnaires, and adding additional insight into the status of dimension Neuroticism within that structure.

The participant sample was comprised of 627 persons, of which 346 were female (55.2%). Participants' ages ranged from 18 to 83 ($M=32.6$, $SD=14.37$). For the purpose of this research, participants filled out questionnaires BFI-2 (60-item), HEXACO-60, and VP+2 (70-item). Considering the goal of verifying the hierarchical structure of basic traits, a total of three hierarchical exploratory factor analyses (HEFA) were performed. The first one included all dimensions of all three of the questionnaires, and parallel analysis indicated a five-factor solution. Latter two analyses were performed on five dimensions from the previous solution, while applying theoretical criteria of three and two factors on higher levels of hierarchy.

Results of the first HEFA replicated four Big Five dimensions – Extraversion (with added Positive valence), Neuroticism, Openness to experience, and Conscientiousness (with added Honesty-Humility). The fifth dimension, low Agreeableness, encompassed dimensions of Aggression, Negative valence, and dimensions of Agreeableness with negative loadings. Next HEFA was carried out on five dimensions, with a three-factor solution chosen as the theoretical criterion. This solution was in concordance with Digman's assumptions. Last HEFA was performed on dimensions defined by the three-factor solution, with the two-factor solution assigned based on theory. This analysis showed that the dimension of Neuroticism has high correlations with both Alpha and Beta dimensions, which is concordant with later studies, but isn't with Digman's original assumptions. A potential explanation for results not matching Digman's assumptions relates to the conceptualization of Neuroticism, that is Emotionality within the HEXACO questionnaire, which reflects internalized aspects of neuroticism, which in turn could have such effect that the entire dimension comprised of dimensions of Neuroticism attaches itself to Beta factor.

Keywords: Hierarchical structure of personality, Alpha and Beta factors, BFI-2, VP+2, HEXACO

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Razlike u perfekcionizmu i sagorevanju u odnosu na pol i bračni status zaposlenih

Sagorevanje je psihosocijalni sindrom koji je povezan sa motivacionim, performansnim i psihološkim poteškoćama. U oblasti rada i uslužnim poslovima, simptomi sagorevanja se posebno odnose na interakcije zaposlenih sa korisnicima usluge koju pružaju, dok se na poslovima koji nisu uslužnog tipa, sagorevanje uopšteno odnosi na radne aktivnosti. Perfekcionizam je dobio značajnu pažnju, kao jedan od prethodnika sagorevanja. Perfekcionizam je kombinacija izuzetno visokih standarda i preokupacije ekstremnom samokritičnom procenom. Cilj ovog istraživanja jeste utvrđivanje razlike u perfekcionizmu i sagorevanju u odnosu na pol i bračni status zaposlenih. Uzorak se sastojao od 94 ispitanika (68.09% žena), uzrasta od 19 do 57 godina. U istraživanju su učestvovali ispitanici sa 95 meseci radnog staža u proseku. Polja struke ispitanika su društveno-humanističke nauke, tehničko-tehnološke nauke, prirodno-matematičke nauke, medicinske nauke, umetnost i kategorija 'ostalo' za polja struke koje ne upadaju i prethodno navedene. Instrumenti korišćeni u istraživanju jesu Frostov Multidimenzionalni inventar perfekcionizma i Kopenhagen inventar sagorevanja. T-testom nezavisnih uzoraka upoređeni su rezultati ispitivanja nivoa perfekcionizma i sagorevanja u odnosu na pol. Utvrđena je statistički značajna razlika između srednjih vrednosti sagorevanja na subskali koja fokus stavlja na lično sagorevanje ($t(92) = -2.029$, $p = 0.04$, $d = 0.1$) i sagorevanja na subskali koja fokus stavlja na sagorevanje u radu sa ljudima ($t(92) = -2.290$, $p = 0.02$, $d = 0.1$) i to u korist žena. Ispitanici su po bračnom statusu podeljeni u tri grupe (stalnoj vezi $N = 29$, bez partnera/ke $N = 36$, u braku $N = 29$). Rezultati jednosmerne analize varijanse pokazuju da statistički značajne razlike postoje kod perfekcionizma na subskali koja fokus stavlja na lične standarde ($F(2,93) = 9.181$, $p = 0.01$) i sagorevanja na subskali koja fokus stavlja na lično sagorevanje ($F(2,93) = 3.632$, $p = 0.03$). Ispitanici koji nisu u intimnom odnosu postižu statistički značajno više skorove na subskali perfekcionizma koja se odnosi na lične standarde, dok ispitanici koji su u braku postižu statistički više skorove na sagorevanju koje se odnosi na lični aspekt. Ispitanici koji nisu u intimnom odnosu imaju više lične standarde, dok ispitanici koji su u braku i u intimnoj vezi imaju veće sagorevanje na ličnom nivou što govori u prilog hipotezi o prelivanju uloga. Takođe, sagorevanje je izraženije kod žena što govori u prilog podacima da žene češće nego muškarci prijavljuju fizičku i emocionalnu iscrpljenost u vezi sa plaćenim radom. Dobijeni rezultati predstavljaju osnovu za dalja istraživanja u cilju utvrđivanja specifičnih aspekata u radu koji dovode do većeg sagorevanja kod žena.

Ključne reči: Perfekcionizam, sagorevanje, zaposleni, bračni status, pol



Differences in perfectionism and burnout in relation to gender and marital status of employees

Burnout is a psychosocial syndrome associated with motivational, psychological, and performance difficulties. In the field of work and service jobs, burnout symptoms refer specifically to employees' interactions with users of the service they provide, while in non-service jobs, burnout generally refers to work activities. Perfectionism has received considerable attention, being one of the antecedents of burnout. Perfectionism is a combination of extremely high standards and a preoccupation with extreme self-critical evaluation. The aim of this research is to determine the difference in perfectionism and burnout in relation to the gender and marital status of employees. The sample consisted of 94 respondents (68.09% women), ages 19 to 57. Respondents with an average of 95 months of service participated in the research. The respondents' professional fields are humanities and social sciences, technical-technological sciences, natural and mathematical sciences, medical sciences, art, and the category 'other' for professional fields that do not fall into the aforementioned categories. The instruments used in the research are Frost's Multidimensional Inventory of Perfectionism and the Copenhagen Burnout Inventory. T-test of independent samples was used to compare the results of the level of perfectionism and burnout in relation to gender. A statistically significant difference was found between the mean values of burnout on the subscale that focuses on personal burnout ($t(92) = -2.029, p = 0.04, d = 0.1$) and burnout on the subscale that focuses on burnout in working with people ($t(92) = -2.290, p = 0.02, d = 0.1$) in favor of women. Respondents were divided into three groups by marital status (in a permanent relationship $N = 29$, without a partner $N = 36$, married $N = 29$). The results of one-way analysis of variance showed that there are statistically significant differences in perfectionism on the subscale that focuses on personal standards ($F(2,93) = 9.181, p = 0.01$) and burnout on the subscale that focuses on personal burnout ($F(2,93) = 3.632, p = 0.03$). Respondents who are not in an intimate relationship achieve statistically higher scores on the subscale of perfectionism, which refers to personal standards, while respondents who are married achieve statistically higher scores on burnout, which refers to the personal aspect. Respondents who are not in an intimate relationship have higher personal standards, while respondents who are married and in an intimate relationship have higher burnout on a personal level, which speaks in favor of the role spillover hypothesis. Also, burnout is more pronounced in women, which supports the data that women more often than men report physical and emotional exhaustion related to paid work. The obtained results represent the basis for further research in order to determine specific aspects in work that lead to greater burnout in women.

Keywords: Perfectionism, burnout, employees, marital status, gender

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Provera psihometrijskih karakteristika Upitnika socijalne anksioznosti (USA)

Socijalna anksioznost (SA) se definiše kao iracionalni, preterani strah koji se javlja usled iščekivanja negativne evaluacije od strane drugih i straha od javnog sramoćenja u različitim društvenim situacijama. Neki od simptoma SA su crvenilo u licu, preterano znojenje, ubrzano disanje, mučnina, drhtanje glasa i blokade u govoru. Osobe sa izraženom SA su sklone izbegavanju različitih socijalnih situacija poput komunikacije sa nepoznatim ljudima, javnih skupova, izlaganja pred grupom ljudi, iznošenja svojih stavova javno i drugih sličnih situacija u želji da na taj način izbegnu sopstveno anksiozno reagovanje. Na duže staze, izbegavajući obrazac ponašanja doprinosi održavanju problema i značajno utiče na kvalitet života pojedinca. Posebno se čini važnim ispitivati SA na uzorku studenata zbog negativnog uticaja koji ona može imati na akademsko postignuće. Kod studenata prisustvo socijalne anksioznosti može uticati na polaganje ispita, češće postizanje nezadovoljavajućih rezultata kao i na odustajanje od školovanja. Stoga, cilj ovog istraživanja bio je konstrukcija upitnika SA i utvrđivanje njegovih psihometrijskih karakteristika na uzorku studenata.

Uzorak je činilo 342 ispitanika iz studentske populacije (75.7% ženski pol; $AS = 21.14$, $SD = 2.63$). Instrumenti koji su korišćeni su Upitnik SA (USA), supskala Anksioznost iz Skale Depresivnosti, Anksioznosti i Stresa– 21 (DASS-21; Jovanović et al., 2014) i Kratka verzija skale straha od negativne evaluacije (Leary, 1983). USA je konstruisan od strane studenata psihologije sa Fakulteta za sport i psihologiju u Novom Sadu i sastoji se od 11 stavki na koje ispitanici odgovaraju služeći se petostepenom Likertovom skalom.

Za proveru konstrukt validnosti primenjena je faktorska analiza u užem smislu (EFA) uz procenitelj maksimalne verodostojnosti. Rezultati EFA su sugerisali da USA ima jednodimenzionalnu strukturu. Na osnovu rezultata EFA kao i na osnovu ajtem analize odlučeno je da se iz upitnika uklone dve stavke. Rezultati ukazuju na to da finalna verzija upitnika od 9 stavki ima odličnu reprezentativnost ($KMO = .93$) i odličnu pouzdanost ($\alpha = .90$). Ekstrahovani faktor objašnjava 50.7% zajedničke varijanse, a faktorska opterećenja se kreću od .57 do .80. Vrednosti korigovane ajtem-total korelacije kreću se od .54 do .75 implicirajući zadovoljavajuću diskriminativnost stavki. Na osnovu korelacija koje skor na USA ostvaruje sa teorijski bliskim konstruktima (sa anksioznošću: $r = .53$, $p < .001$; sa strahom od negativne evaluacije: $r = .58$, $p < .001$) može se zaključiti da USA ima zadovoljavajuću konvergentnu validnost. Konstruisani Upitnik socijalne anksioznosti predstavlja reprezentativnu meru prisustva socijalne anksioznosti kod studenata.



Ključne reči: socijalna anksioznost, anksioznost, strah od negativne evaluacije, faktorska analiza, studenti

Evaluation of Psychometric Characteristics of the Social Anxiety Questionnaire (SAQ)

Social anxiety (SA) is defined as irrational, excessive fear that arises due to the anticipation of negative evaluation from others and fear of public humiliation in various social situations. Some of the symptoms of SA include facial flushing, excessive sweating, rapid breathing, nausea, voice trembling, and speech blocks. Individuals with pronounced SA tend to avoid various social situations such as communicating with strangers, public gatherings, presentations in front of a group of people, expressing their views publicly, and other similar situations in order to avoid their own anxious reaction. In the long run, the avoidance behavior contributes to the maintenance of the problem and significantly affects the quality of life of the individual. It seems particularly important to examine SA in a sample of students because of the negative impact it can have on academic achievement. In students, the presence of social anxiety can affect exam taking, frequent achievement of unsatisfactory results, and dropping out of school. Therefore, the aim of this research was to construct a SA questionnaire and determine its psychometric characteristics in a sample of students.

The sample consisted of 342 participants from the student population (75.7% female; $M = 21.14$, $SD = 2.63$). The instruments used were the Social Anxiety Questionnaire (SAQ), Anxiety subscale from the Depression, Anxiety and Stress Scale-21 (DASS-21; Jovanović et al., 2014), and Short version of the Fear of Negative Evaluation Scale (Leary, 1983). The SAQ was constructed by psychology students from the Faculty of Sport and Psychology in Novi Sad and consists of 11 items which respondents answer using a five-point Likert scale.

To test construct validity, exploratory factor analysis (EFA) was applied with the maximum likelihood estimator. The results of the EFA suggested that the SAQ has a unidimensional structure. Based on the results of the EFA and the item analysis, it was decided to remove two items from the questionnaire. The results suggest that the final 9-item version of the questionnaire has excellent representativeness ($KMO = .93$) and excellent reliability ($\alpha = .90$). The extracted factor explains 50.7% of the common variance, and factor loadings range from .57 to .80. The values of corrected item-total correlations range from .54 to .75, implying satisfactory item discriminant validity. Based on the correlations that the SAQ score achieves with theoretically related constructs (with anxiety: $r = .53$, $p < .001$; with fear of negative evaluation: $r = .58$, $p < .001$), it can be concluded that the SAQ has satisfactory convergent validity. The constructed Social Anxiety Questionnaire is a representative measure of the presence of social anxiety among students.

Keywords: social anxiety, anxiety, fear of negative evaluation, factor analysis, students



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Značaj fizičke aktivnosti za mentalno zdravlje studenata

Mentalno zdravlje podrazumeva psihološko blagostanje u kojem je osoba u mogućnosti da realizuje sopstvene potencijale, da se suoči sa uobičajenim životnim stresom, bude produktivna u radu i doprinosi sopstvenoj zajednici. Prethodna istraživanja nagovestila su pozitivan uticaj fizičke aktivnosti na mentalno zdravlje i prevenciju depresivnih i anksioznih poremećaja. Fizička aktivnost podrazumeva bilo koji pokret tela koji proizvode skeletni mišići, što za posledicu ima trošenje energije, dok planirana, strukturirana i ponavljajuća aktivnost sa ciljem unapređenja fizičke spremnosti predstavlja fizičko vežbanje.

Cilj ovog istraživanja bio je da se ispita da li se studenti koji se izjašnjavaju kao aktivni sportisti, rekreativci ili fizički neaktivni razlikuju međusobno prema sledećim indikatorima mentalnog zdravlja: subjektivnom blagostanju (SB), samopoštovanju, pozitivnom (PA) i negativnom afektu (NA), depresivnosti i anksioznosti.

Uzorak je činilo 156 studenata (73.7% ženskog pola; $AS = 22.24$, $SD = 6.09$). Od instrumenata korišćeni su Srpski Inventar Afekata Baziran na PANAS-X (Mihić et al., 2010), Kratka skala subjektivnog blagostanja (Jovanović, 2010), DASS-21 (Lovibond & Lovibond, 1995) i Rozenbergova skala samopoštovanja (Rosenberg, 1989). Od studenata je takođe traženo da označe da li pripadaju kategoriji aktivnih sportista, rekreativcima ili fizički neaktivnim pojedincima.

Usled provere normalnosti distribucije varijabli, opredelili smo se za neparametrijski Kruskal-Wallis test. Rezultati ukazuju na to da se grupe aktivnih sportista, rekreativaca i fizički neaktivnih studenata međusobno značajno ne razlikuju prema SB ($H(2) = 4.01$, $p = .135$); samopoštovanju ($H(2) = 1.38$, $p = .502$); NA ($H(2) = 5.42$, $p = .067$); i simptomima depresivnosti ($H(2) = 4.88$, $p = .087$). Međutim, rezultati sugerišu postojanje statistički značajnih razlika na merama anksioznosti ($H(2) = 8.54$, $p = .014$), i PA ($H(2) = 9.31$, $p = .010$). Primenom post-hoc analize utvrđeno je da na skali anksioznosti značajno viši skor postižu fizički neaktivni ($MR = 89.34$), kao i rekreativci ($MR = 81.68$) u poređenju sa aktivnim sportistima ($MR = 59.44$). Između fizički neaktivnih i rekreativaca ne postoje značajne razlike u anksioznosti. Kada je u pitanju pozitivni afekat, pronađene su razlike samo između fizički neaktivnih ($MR = 61.13$) i aktivnih sportista ($MR = 84.47$), i to tako da aktivni sportisti postižu viši skor. Značajne razlike u pozitivnom afektu ne postoje između fizički neaktivnih i rekreativaca ($MR = 79.84$), kao ni između rekreativaca i aktivnih sportista. Rezultati su interpretirani u skladu sa aktuelnim istraživanjima koja ukazuju na značaj strukturiranog fizičkog vežbanja u redukciji anksioznosti i uticaju na pozitivni afekat, ali je opšti zaključak da više fizičke aktivnosti ne znači nužno i više mentalnog zdravlja.



Ključne reči: mentalno zdravlje, fizička aktivnost, anksioznost, pozitivni afekat

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The Importance of Physical Activity for Students' Mental Health

Mental health implies psychological well-being in which a person is able to realize their potential, cope with the usual life stress, be productive at work and contribute to their community. Previous research has suggested a positive impact of physical activity on mental health and the prevention of depressive and anxiety disorders. Physical activity involves any movement of the body produced by skeletal muscles, resulting in energy expenditure, while planned, structured, and repetitive activity aimed at improving physical fitness represents physical exercise.

The aim of this research was to examine whether students who identify themselves as active athletes, recreational athletes, or physically inactive differ among themselves according to the following indicators of mental health: subjective well-being (SB), self-esteem, positive affect (PA), negative affect (NA), depression, and anxiety.

The sample consisted of 156 students (73.7% female; $M = 22.24$, $SD = 6.09$). The instruments used were the Serbian Affect Inventory Based on PANAS-X (Mihic et al., 2010), the Brief Subjective Well-being Scale (Jovanović, 2010), DASS-21 (Lovibond & Lovibond, 1995), and Rosenberg's Self-Esteem Scale (Rosenberg, 1989). Students were also asked to indicate whether they belong to the category of active athletes, recreational athletes, or physically inactive individuals.

Following the verification of the normal distribution of variables, we opted for the nonparametric Kruskal-Wallis test. The results indicate that the groups of active athletes, recreational athletes, and physically inactive students do not significantly differ among themselves according to SB ($H(2) = 4.01$, $p = .135$); self-esteem ($H(2) = 1.38$, $p = .502$); NA ($H(2) = 5.42$, $p = .067$); and symptoms of depression ($H(2) = 4.88$, $p = .087$). However, the results suggest the existence of statistically significant differences on measures of anxiety ($H(2) = 8.54$, $p = .014$), and PA ($H(2) = 9.31$, $p = .010$). The post-hoc analysis revealed that physically inactive ($MR = 89.34$) and recreational athletes ($MR = 81.68$) score significantly higher on the anxiety scale compared to active athletes ($MR = 59.44$). There are no significant differences in anxiety between physically inactive and recreational athletes. When it comes to positive affect, differences were found only between physically inactive ($MR = 61.13$) and active athletes ($MR = 84.47$), in that active athletes achieve a higher score. Significant differences in positive affect do not exist between physically inactive and recreational athletes ($MR = 79.84$), nor between recreational athletes and active athletes. The results are interpreted in line with current research indicating the importance of structured physical exercise in reducing anxiety



and influencing positive affect, but the general conclusion is that more physical activity does not necessarily mean more mental health.

Keywords: mental health, physical activity, anxiety, positive affect



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Psihološke determinante uspešnosti plivača

U našoj sredini ima malo istraživanja koja se bave psihološkim determinantama uspešnosti plivača. Inostrana istraživanja naglasila su povezanost između anksioznosti, samoeфикаsnosti, samopouzdanja i nivoa koncentracije plivača/takmičara sa njegovim rezultatom takmičenja. Takmičarska uspešnost u plivanju je obično operacionalizovana tzv. Rudolfovим bodovima koji predstavljaju vreme preplivane metraže u skladu sa uzrastom, polom i disciplinom plivanja. Kada su u pitanju psihološke varijable, ispituju se kognitivna (mentalna) i somatska anksioznost (pobuđenost ANS). Ostale česte varijable su i generalna samoeфикаsnost koja predstavlja evaluaciju sopstvenih mogućnosti za izvršenje određene radnje, kao i samopouzdanje koje se može odnositi na trenutno stanje ili na crtu ličnosti individue. Ispitivanje ovih konstrukata je značajno jer se na njih može uticati, te tako unaprediti takmičarski performans plivača. Ono što nedostaje jeste ispitivanje netolerancije na neizvesnost kao važnog faktora koji može uticati na anksioznost, pa tako i na stepen koncentracije u situaciji takmičenja, što posledično vodi umanjenom doživljaju samoeфикаsnosti i samopouzdanja.

Cilj ovog istraživanja bio je da se utvrdi kako se na osnovu gorenavedenih psiholoških determinanti može predvideti uspešnost plivača definisana Rudolfovим bodovima. Uzorak je činilo 59 ispitanika mladih od 18 godina koji su članovi plivačkih klubova sa teritorije Vojvodine (55.9% ženski pol; AS = 14.22, SD = 1.31). Od instrumenata korišćeni su Skala generalizovane samoeфикаsnosti (Schwarzer et al., 2010), Skala sportske anksioznosti-2 (Smith et al., 2006), Skala netolerancije na neizvesnost – 11 (Mihić et al., 2014), i supskala samopouzdanja iz revidirane skale takmičarske anksioznosti (Cox et al., 2003).

Rezultati ukazuju na to da su Rudolfovi bodovi u značajnoj pozitivnoj korelaciji sa samoeфикаsnošću ($r = .272, p < .05$) i samopouzdanjem ($r = .359, p < .01$). Regresioni model u kom su samoeфикаsnost i samopouzdanje uvedeni kao prediktorske varijable, a Rudolfovi bodovi kao kriterijum, je statistički značajan i objašnjava 14.1% varijanse kriterijuma ($R^2 = .141, F(78.77, 478.66) = 4.361, p < .05$). Rezultati sugerišu da samopouzdanje značajno predviđa uspešnost u plivanju ($\beta = .297, p < .05$), što je u skladu



sa rezultatima dosadašnjih istraživanja. Samoefikasnost se nije pokazala kao značajan prediktor ($\beta = .127, p > .05$). Ovo se može objasniti time što je u istraživanju ispitivana generalizovana, a ne specifična (sportska) samoefikasnost. Kada su u pitanju komponente sportske anksioznosti, pretpostavka je da bi se drugačiji obrazac rezultata dobio da je sportska anksioznost ispitivana kao stanje, neposredno pred takmičenje, a ne retroaktivno.

Ključne reči: samoefikasnost, samopouzdanje, plivanje, Rudolfovi bodovi

Psychological Determinants of Swimmers' Success

In our environment, there is little research dealing with the psychological determinants of the success of swimmers. Foreign studies have emphasized the connection between anxiety, self-efficacy, confidence, and the level of concentration of swimmers/competitors with their competition results. Competitive success in swimming is usually operationalized by so-called Rudolf's points, which represent the time it takes to swim a distance in accordance with age, gender, and swimming discipline. When it comes to psychological variables, cognitive (mental) and somatic anxiety (ANS arousal) are examined. Other common variables include general self-efficacy, which represents an evaluation of one's abilities to perform a certain action, and confidence, which can refer to the current state or personality trait of an individual. Studying these constructs is significant because they can be influenced, and thus the competitive performance of swimmers can be improved. What is missing is the examination of intolerance to uncertainty as an important factor that can affect anxiety, and therefore the level of concentration in a competition situation, which consequently leads to a reduced experience of self-efficacy and confidence.

The aim of this research was to determine how the above-mentioned psychological determinants can predict the success of swimmers defined by Rudolf's points. The sample consisted of 59 respondents under the age of 18 who are members of swimming clubs in the Vojvodina region (55.9% female; $M = 14.22, SD = 1.31$). The instruments used were the General Self-Efficacy Scale (Schwarzer et al., 2010), the Sport Anxiety Scale-2 (Smith et al., 2006), the Intolerance of Uncertainty Scale - 11 (Mihic' et al., 2014), and the confidence subscale from the Revised Competitive State Anxiety Inventory (Cox et al., 2003).

The results indicate that Rudolf's points are significantly positively correlated with self-efficacy ($r = .272, p < .05$) and confidence ($r = .359, p < .01$). The regression model in which self-efficacy and confidence are introduced as predictive variables, and Rudolf's points as the criterion, is statistically significant and explains 14.1% of the criterion variance ($R^2 = .141, F(78.77, 478.66) = 4.361, p < .05$). The results suggest that confidence significantly predicts success in swimming ($\beta = .297, p < .05$), which is in line with the results of previous research. Self-efficacy did not prove to be a significant predictor ($\beta = .127, p > .05$). This can be explained by the fact that the research examined generalized, and not



specific (sport) self-efficacy. Regarding the components of sport anxiety, it is assumed that a different pattern of results would be obtained if sport anxiety was examined as a state, immediately before the competition, and not retroactively.

Keywords: self-efficacy, confidence, swimming, Rudolf's points



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Da li je žrtva seksualnog zlostavljanja uvek žrtva u očima javnosti?

Seksualno zlostavljanje i uznemiravanje je važan društveni problem koji ostavlja teške fizičke, psihičke i socijalne posledice. Osnovni cilj istraživanja je utvrđivanje reakcija društva na vesti o seksualnom zlostavljanju i uznemiravanju žena, sa praktičnim ciljem skretanja pažnje na odnos društva prema ovom vidu nasilja.

U radu su predstavljeni rezultati analize sadržaja komentara na vesti o tri slučaja seksualnog zlostavljanja i uznemiravanja žena za koje su optuženi Milutin Jeličić Jutka, Miroslav Aleksić i članovi grupa na aplikaciji Telegram.

Uzorak za analizu činili su komentari na vesti sa portala Telegraf, Mondo, B92 i Kurir, objavljene od marta 2018. do marta 2021. godine. Portali su izabrani sa liste 50 najposećenijih sajtova u Srbiji u 2020. godini agencije Brisbane Digital. Za sva tri slučaja vesti su grupisane u tri vremenske kategorije: prve reakcije javnosti, slučaj u fokusu javnosti i epilog slučaja. U svakoj etapi odabrana je vest sa najvećim brojem komentara, nakon čega je slučajnim izborom birano pet komentara po vesti (komentar je morao biti bar jedna prosto-proširena i smisljena rečenica). Analizirano je ukupno 180 komentara, 60 komentara po slučaju, 45 komentara po portalu i za svaku etapu u okviru slučaja po 20.

Procenjivan je intenzitet podrške ili osude (skor na petostepenoj skali od potpune osude -2 do potpune podrške 2), koja se kroz komentare pruža žrtvi, počiniocu i državi/pravosudnom sistemu. Testirane su hipoteze o statistički značajnim razlikama podrške/osude u zavisnosti od slučaja, portala i etape. Analizirani su i epiteti korišćeni u opisu žrtava i počinioca, koji su svrstavani u pozitivan/negativan modalitet varijabli: psihičko stanje, moral/karakter i fizička pojava žrtve, odnosno psihičko stanje, moral/karakter i fizička pojava počinioca.

Najveći broj komentara odnosio se na žrtvu (66.7% ukupnog uzorka), 49.4% na počinioca, a najmanje na državu/pravosudni sistem (26.1%). Najviše komentara sadrži epitete vezane za negativnu procenu psihičkog stanja počinioca (11.7% ukupnog uzorka) i moral/karakter žrtve (8.3% ukupnog uzorka) koji je negativno procenjen u 60% ovih komentara.

Prosečne vrednosti ($M\bar{z}=-.53$) ukazuju na umerenu osudu žrtve. Kada je reč o podršci/osudi počinioca ($M_p=-1.21$) i države ($M_d=-1.21$), vrednosti pokazuju umerenu ka potpunoj osudi. Ovo sugeriše da su čitaoci u komentarima bili pretežno osuđivački nastrojeni prema svim stranama u slučaju. Ipak, histogram raspodele skorova podrške/osude žrtve ukazuje na grupisanje skorova na ekstremima, odnosno oscilaciju između potpune podrške i potpune osude žrtve.

Najveći stepen podrške žrtve zabeležen je kod slučaja Jutka (72.31), a najmanji kod slučaja Telegram (49.29) i ove razlike su značajne ($H(2)=9.095$, $p=.011$). Ovo se može tumačiti u svetlu brojnih komentara koji su žrtve slučaja Telegram krivili za to što su njihove obnažene fotografije postale dostupne drugima.

Najveća podrška žrtvi pružena je u etapi prve reakcije javnosti (71.71), a najmanja u etapi epilog slučaja (52.07) i ove razlike su značajne ($H(2)=7.255$, $p=.027$). Opadanje broja komentara na vesti u kasnijim etapama slučajeva može govoriti o gubitku interesovanja javnosti.

Ključne reči: seksualno zlostavljanje, seksualno uznemiravanje, analiza sadržaja, komentari čitalaca, portali.

Is a victim of sexual abuse always a victim in the public eye?

Sexual abuse and harassment is an important social problem that leaves severe physical, psychological and social consequences. The main goal of the research is to determine the reactions of the society to the news about sexual abuse and harassment of women, with the practical goal of drawing attention to society's attitude towards this form of violence.

The results presented in this paper are the results of the analysis of the content in the comments on the news about 3 cases of sexual harassment and abuse of women. The men who were accused of these crimes were Milutin Jeličić Jutka, Miroslav Aleksić and members of groups on the Telegram application.

The samples taken for the analysis consisted of comments on news from Telegraf, Mondo, B92 and Kurir portals, published from March 2018 to March 2021. The portals were selected from the list of the 50 most visited sites in Serbia in 2020 by the Brisbane Digital agency. For all three cases, the news is grouped into three time categories: the first reactions of the public, the case in the focus of the public and the epilogue of the case. In each stage, the news with the biggest number of comments was selected, after which five comments per news were randomly selected (the comment had to be at least one extended simple sentence and meaningful sentence). A total of 180 comments were analyzed, 60 comments per case, 45 comments per portal and 20 comments for each stage within the case.

The intensity of support or condemnation (score on a five-point scale from complete condemnation -2 to complete support 2), which is provided through comments to the victim, the perpetrator and the state/judicial system, was assessed. Hypotheses about



statistically significant differences of support/condemnation depending on case, portal and stage were tested. The epithets used in the description of victims and perpetrators were also analyzed, which were classified into the positive/negative modality of variables: mental state, moral/character and physical appearance of the victim, that is, mental state, moral/character and physical appearance of the perpetrator.

The biggest number of comments referred to the victim (66.7% of the total sample), 49.4% referred to the perpetrator, and the least to the state/judicial system (26.1%). Most of the comments contain epithets related to the negative assessment of the mental state of the perpetrator (11.7% of the total sample) and the morality/character of the victim (8.3% of the total sample), which was negatively assessed (judged) in 60% of these comments.

The average values ($M\check{z}=-.53$) indicate a moderate condemnation of the victim. When it comes to support/condemnation of the perpetrator ($M_p=-1.21$) and the state ($M_d=-1.21$), the values show moderate to full condemnation. This suggests that readers in the comments were mostly judgmental towards all sides involved in the case. Nevertheless, the histogram of the distribution of scores of support/condemnation of the victim indicates a grouping of scores at the extremes, that is, an oscillation between complete support and complete condemnation of the victim.

The highest level of support towards a victim is recorded in the case of Jutka (72.31), and the lowest in the case of Telegram (49.29), and these differences are significant ($H(2)=9.095$, $p=.011$). This can be interpreted because of the numerous comments that the victims of the Telegram case were blamed for their nude photos becoming available to others.

The biggest support towards the victim was provided in the stage of the first reactions of the public (71.71), and the least in the stage of the epilogue of the case (52.07). These differences are significant ($H(2)=7.255$, $p=.027$). A decrease in the number of comments, on the news in the later stages of cases, may indicate a loss of public interest.

Keywords: sexual abuse, sexual harassment, content analysis, comments of the readers, portals.



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Covid-19 pandemija i suicidalne ideacije u populaciji odraslih u Srbiji

Ciljevi sprovedenog istraživanja bili su provera povezanosti procene uticaja pandemije koronavirusa, sa izraženošću suicidalnih ideacija, sociodemografskim i kliničkim varijablama, kao i utvrđivanje u kojoj meri ispitanici smatraju da je pandemija uticala na



njihovo psihičko i profesionalno funkcionisanje. Za potrebe istraživanja korišćeni su upitnik o sociodemografskim i kliničkim varijablama, kao i RASS skala za procenu suicidalnosti. Prikupljanje podataka obavljeno je putem platforme Google Forms, dok je uzorak je bio dobrovoljački. Uzorak je sačinjen od 341 ispitanika iz opšte populacije, od toga 250 žena (73.3%) i 91 muškarac (26.7%), uzrasta od 19 do 72 godine ($M=36.41$, $SD=14.72$). Od ukupnog broja ispitanika, 54 (15,8%) su pod suicidalnim rizikom. Žene su izveštavale o većem uticaju pandemije na psihičko funkcionisanje u odnosu na muškarce, ali je ova razlika na granici značajnosti ($U(341)=9847.5$, $p=0.045$). O većem procenjenom uticaju pandemije na psihičko funkcionisanje izveštavaju studenti i penzioneri ($\chi^2(3)=12.631$, $p=0.006$). Takođe, uočene su značajne razlike u stepenu procenjenog uticaja pandemije na radno funkcionisanje ili profesionalne obaveze ($\chi^2(3)=13.917$, $p=0.003$), gde o najvećem uticaju izveštavaju studenti. Konačno, ispitanici pod suicidalnim rizikom izveštavali su o većem uticaju pandemije na psihičko funkcionisanje u odnosu na ispitanike koji nisu pod rizikom ($U(341)=5385$, $p<0.001$), a slično je i sa procenjenim uticajem pandemije na radno funkcionisanje i profesionalne obaveze ($U(341)=5799$, $p<0.01$). U pogledu psihičkog funkcionisanja, o najvećem uticaju pandemije su izvestili studenti, penzioneri i žene, dok je pandemije imala najveći uticaj na profesionalno funkcionisanje u populaciji studenata.

Ključne reči: Covid-19, pandemija, mentalno zdravlje, suicidalnost

Covid-19 pandemic and suicidal ideation in the adult population in Serbia

The purpose of this paper was to examine the connection between the coronavirus pandemic with the expression of suicidal ideation, sociodemographic and clinical variables, as well as to determine the extent to which respondents believe that the pandemic affected their psychological and professional functioning. A questionnaire on sociodemographic and clinical variables, as well as the RASS scale for assessing suicidality, were used for research purposes. Data collection was done through the Google Forms platform, while the sample was voluntary. The sample consisted of 341 respondents from the general population, of which 250 were women (73.3%) and 91 were men (26.7%), aged 19 to 72 ($M=36.41$, $SD=14.72$). Out of the total number of respondents, 54 (15.8%) are at suicidal risk. Women reported a greater impact of the pandemic on psychological functioning compared to men, but this difference is at the limit of significance ($U(341)=9847.5$, $p=0.045$). Students and pensioners report a greater estimated impact of the pandemic on psychological functioning ($\chi^2(3)=12.631$, $p=0.006$). Also, significant differences were observed in the degree of the estimated impact of the pandemic on work functioning or professional obligations ($\chi^2(3)=13.917$, $p=0.003$), where the greatest impact is reported by students. Finally, respondents at suicidal risk reported a greater impact of the pandemic on psychological functioning compared to respondents not at risk ($U(341)=5385$, $p<0.001$), and the same is true for the estimated



impact of the pandemic on work functioning and professional obligations. ($U(341)=5799$, $p<0.01$). In terms of psychological functioning, the greatest impact of the pandemic was reported by students, pensioners, and women, while the pandemic had the greatest impact on professional functioning in the student population.

Keywords: Covid-19, pandemic, mental health, suicidality



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Istraživanje na fudbalskom terenu: Karakteristike motivacije kod dece koja treniraju fudbal u Srbiji

Cilj ovog istraživanja bio je da se ispita motivacija za treniranjem fudbala kod dece uzrasta od 5 do 15. Ukupan uzorak u istraživanju čini 1000 ispitane dece. Na osnovu spiska klubova iz Mini Maxi lige, slučajnim uzorkovanjem su odabrani klubovi iz sva četiri okruga u Srbiji (sever, zapad, istok i Beograd), i to tako da uzorak bude približno jednak po uzrastu (grupe dece od 5-9 godina i grupe dece 10-15 godina), tj. da odgovara ukupnoj populaciji dece koja treniraju fudbal u Srbiji. Baterija instrumenata je konstruisana za potrebe istraživanja. Upitnikom za ispitivanje motivacije za treniranjem (MOT23) procenjivan je stepen važnosti pojedinačnih motivatora (zabava, sticanje novih veština, dobro fizičko stanje i zdravlje, druženje i takmičenje i pobeda). Takođe, ispitanici su imali zadatak da odaberu jedan od ovih motivatora kao najvažniji.

Rezultati pokazuju da je najučestalija dominantna motivacija za treniranjem fudbala bez obzira na uzrasnu grupu dece, sticanje i razvoj novih veština, nju je odabralo 29,5% dece. Što se tiče procene važnosti svih motivatora u različitim uzrasnim grupama, rezultati χ^2 ukazuju na to da je mlađoj deci (5-9) statistički značajno važnija zabava kao motiv za treniranjem ($\chi^2(2, N=816)=6.582$, $p<0.05$), dok starijoj deci (10-15) značajniji motiv predstavlja održavanje fizičkog zdravlja i snage ($\chi^2(2, N=816)=9.085$, $p<0.05$).

Ključne reči: fudbal, motivacija, deca

Research on the football field: Characteristics of motivation among children who practice football in Serbia

The aim of this research was to examine the motivation for training football in children aged 5 to 15. The total sample in the research consists of 1000 examined children. On the basis of the list of clubs from the Mini Maxi League, clubs from all four districts in Serbia (north, west, east and Belgrade) were selected by random sampling, so that the sample was approximately equal in age (groups of children aged 5-9 and groups children 10-15 years old), i.e. to correspond to the total population of children who practice football in Serbia. A battery of instruments was constructed for research purposes. The



motivation for training questionnaire (MOT23) assessed the degree of importance of individual motivators (fun, acquiring new skills, good physical condition and health, companionship and competition and winning). Also, the respondents had the task of choosing one of these motivators as the most important.

The results show that the most frequent dominant motivation for coaching football, regardless of the age group of children, is the acquisition and development of new skills, it was chosen by 29.5% of children. Regarding the assessment of the importance of all motivators in different age groups, the results of χ^2 indicate that for younger children (5-9) fun is statistically significantly more important as a motivation for training ($\chi^2(2, N=816)=6.582, p<0.05$), while for older children (10-15), maintaining physical health and strength is a more significant motive ($\chi^2(2, N=816)=9.085, p<0.05$).

Keywords: football, motivation, children



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Validaciona studija Skale ambivalentnog seksizma

Osnovu našeg istraživanja predstavlja koncept ambivalentnog seksizma, koji je postuliran od strane Glicka i Fiskeove. Naime, pomenuti autori su konceptualizovali seksizam kao dvodimenzionalni konstrukt, sačinjen od hostilnog (HS) i benevolentnog seksizma (BS). Hostilni seksizam podrazumeva otvoreno izražavanje agresivnog i ponižavajućeg ponašanja prema ženama, dok benevolentni seksizam predstavlja unižujuće stavove i ponašanja maskirane naizgled pozitivnim konotacijama. Benevolentni seksizam se vidi kao oblik seksizma koji subliminalno održava tradicionalne rodne uloge. Za potrebe procene ambivalentnog seksizma, napravili smo skalu sa 56 ajtema (AS21). Kao i originalna skala Glicka i Fiskeove, i naša je podeljena na dve dimenzije, hostilni i benevolentni seksizam, pri čemu su obe dimenzije dalje sačinjene od tri supskale. Budući da je naš instrument pokazao dobre metrijske karakteristike (npr., $\alpha = .95$ za HS i $\alpha = .94$ za BS) testirali smo validnost skale AS21 ($N = 336$; 64.3% žene; MeanStarost = 25.8), zajedno zadavajući i originalni Inventar Ambivalentnog Seksizma (ASI), testove ličnosti (HEXACO, DELTA9), kao i Skalu Orijentacije na Socijalnu Dominaciju (SDO) sa ciljem ispitivanja konvergentne i divergentne valjanosti. Da bismo ispitali valjanost našeg instrumenta AS21, sproveli smo i eksplorativnu faktorsku analizu sa rotacijom Oblimin, pri čemu smo kao metod ekstrakcije koristili Analizu glavnih osa. Faktorska analiza je izrodila tri faktora - Hostilni seksizam (HS), Nesposobnost žena (NŽ) i Prevaziđenost feminizma (PF). Korelacija AS21 sa ASI kretala se od osrednje do visoke (r od .38 to .82, sve značajne na nivou $p < .01$), dok je pokazivala i nisku do osrednju

korelaciju sa SDO7 (r od .01 to .47, sve značajne na nivou $< .01$), dok su korelacije sa drugim crtama ličnosti bile očekivano niske ili neznačajne (r od .01 do .18; neke značajne na nivou $p < .01$), osim u slučajevima Otvorenosti, Emocionalnosti i DELTE (r od .01 do .43; sve osim jedne značajne na nivou $p < .01$), što je ukazivalo na dobru konvergentnu valjanost instrumenta AS21. Prediktivna valjanost testirana je na dva načina - kanoničkom korelacionom analizom, kao i multiplom regresijom, pri čemu smo naše faktore koristili kao prediktore, a devet bihevioralnih varijabli vezanih za svakodnevno ponašanje kao kriterijume. Kanonička diskriminaciona analiza pokazala je dobru prediktivnu moć naših faktora pri predviđanju pola ispitanika ($\chi^2=99.253$, $p<.01$). Isto tako, i multipla regresija ukazala je na dobru prediktivnu moć AS21, pri čemu je negativno komentarisanje žena i odnos prema marginalizovanim grupama najbolje predviđan kroz HS (β ranging from .24 to .34, $p < .01$) dok je upotreba rodno-senzitivnog jezika najbolje predviđana kroz NŽ (β ranging from .19 to .22, $p < .01$). Globalno, AS21 pokazao je odličnu valjanost, zbog čega smatramo da se u budućim istraživanjima može koristiti kao pouzdana mera.

Ključne reči: Ambivalentni seksizam, validacija, psihometrijske karakteristike, bazične osobine ličnosti

The Validation Study Of The Ambivalent Sexism Scale

The foundation of our research is the concept of Ambivalent Sexism, first introduced by Glick & Fiske. Namely, the aforementioned authors conceptualised sexism as a two-dimensional construct, comprised of Hostile (HS) and Benevolent Sexism (BS). Hostile Sexism represents overt aggressive and demeaning behaviour towards women, whilst Benevolent Sexism also represents derogatory attitudes and behaviour, but rather masked with a positive tone. Benevolent Sexism is seen as a form of sexism which subliminally perpetuates traditional gender roles. We developed a 56-item scale to measure Ambivalent Sexism (AS21). Our Scale was divided into two dimensions - Hostile and Benevolent Sexism, which are in turn composed of three subscales each. Showing good psychometric properties (e.g., $\alpha = .95$ for HS, and $\alpha = .94$ for BS), we tested the validity of our AS21 scale ($N = 336$; 64.3% women; MeanAge = 25.8) alongside the original Ambivalent Sexism Inventory (ASI), personality scales (HEXACO, DELTA9), as well as Social Dominance Orientation Scale (SDO), in order to test convergent and divergent validity of our instrument. To validate AS21, we conducted exploratory Factor Analysis (EFA) with Oblimin rotation and Principal Axis Factoring. EFA yielded three factors - Hostile Sexism (HS), Female incompetence (FI), and Redundancy of Feminism (RF). AS21 had moderate to high association with ASI (r ranging from .38 to .82, all $ps < .01$), as well as low to moderate correlation with SDO7 (r ranging from .01 to .47, all $ps < .01$), while correlations with other personality traits were expectedly low or insignificant (r ranging from .01 to .18; some $ps < .01$), except in the cases of Openness, Emotionality and DELTA (r ranging from .01 to .43; all but one $ps < .01$), showing good convergent validity of AS21.



Predictive validity was further tested via both canonical discrimination analysis and multiple regression analyses, with our factors as predictors and nine variables of relevant everyday behaviours as criteria. Canonical discriminant analysis showed good predictive power of our factors when it comes to predicting the gender of subjects ($\chi^2=99.253$, $p<.01$). Multiple regression analysis also showed good predictive power of AS21, with negative commentary regarding women, as well as behaviour towards marginalised groups being predicted by HS (β ranging from .24 to .34, $p < .01$) and use of gender-sensitive language being predicted by FI (β ranging from .19 to .22, $p < .01$). Overall, AS21 showed excellent validity, thus could be used in further research as a comprehensive measure.

Keywords: Ambivalent sexism, validation, psychometric properties, basic personality traits



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The Best Paper Presented on Transfer's Subconference

Marija Erić, Andrijana Daćevac, Katarina Đorđević, Filip Janjetović, Olga Kremenjak
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Anica Petrović, Neda Milinković, Aleksandra Mičić
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