

Dobre i loše istraživačke prakse na primeru istraživanja u psihologiji sa akcentom na otvaranje osetljivih podataka u psihologiji

Serbi.RDM

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Osnovna ideja Otvorene nauke je da bi

svo znanje trebalo da bude slobodno deljeno.

Kako bi trebalo da bude...

Važni naučni nalazi bi trebalo da budu nezavisno replicirani, a dokazi o njihovoj robustnosti akumulirani.

Ukoliko je istraživački nalaz teorijski utemeljen i nastao u okviru metodološki dobro osmišljene studije, trebalo bi da bude publikovan u respektabilnom časopisu.

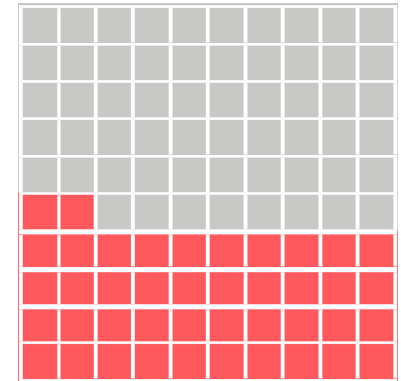
Bez obzira na to da li je nalaz pozitivan ili negativan.

Nauka je auto-korektivna: samo replikabilni nalazi „prođu test“.

Ipak, u psihologiji ...

Empirically analyzing empirical evidence

One of the central goals in any scientific endeavor is to understand causality. Experiments that seek to demonstrate a cause/effect relation most often manipulate the postulated causal factor. Aarts *et al.* describe the replication of 100 experiments reported in papers published in 2008 in three high-ranking psychology journals. Assessing whether the replication and the original experiment yielded the same result according to several criteria, they find that about one-third to one-half of the original findings were also observed in the replication study.



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NATURE | NEWS

Over half of psychology studies fail reproducibility test

Largest replication study to date casts doubt on many published positive results.



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NATURE | COMMENT

Reproducibility: Don't cry wolf

Jan Conrad

01 July 2015

Tighten the requirements for declaring physics breakthroughs, says Jan Conrad.



nature DRUG DISCOVERY REVIEWS

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Correspondence

Nature Reviews Drug Discovery 10, 712 (September 2011) | doi:10.1038/nrd3439-c1

Believe it or not: how much can we rely on published data on potential drug targets?

See also: [News and Analysis by Arrowsmith](#)

Florian Prinz¹, Thomas Schlange² & Khusru Asadullah³

- “In 2011, German researchers in the drug company Bayer found in an extensive survey that more than 75% of the published findings could not be validated.”

Medicina – onkološka istraživanja



- “In 2012, scientists at the American drug company Amgen published the results of a study in which they selected 53 key papers deemed to be “landmark” studies and tried to reproduce them. Only 6 (11%) could be confirmed.”

Questionable research practices

-Loše istraživačke prakse-

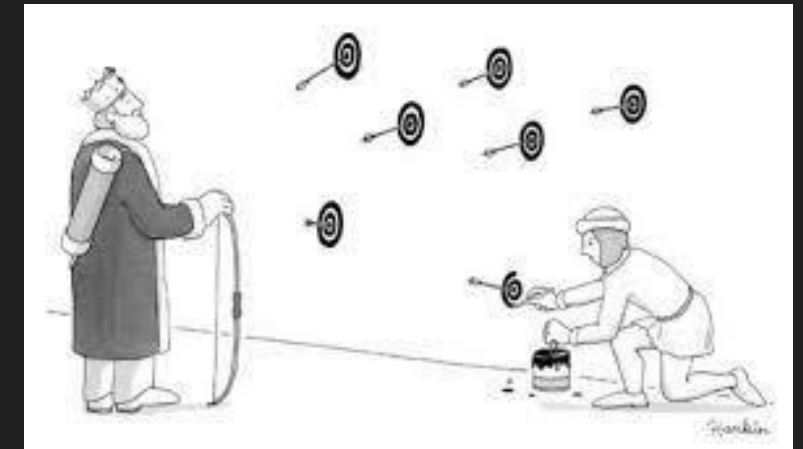


Questionable Research Practices (QRP)

Anonimna anketa - 6000 APA članova:

- 74% ne prijavljuje sve ZV, već samo one za koje su dobijeni statistički značajni efekti
- 71% prestaje sa prikupljanjem podataka kada dobiju statistički značajan rezultat
- 54% prijavljuje neočekivane rezultate kao da su bili očekivani (tzv HARK ing- Hypothesizing After Results are Known)
- 50% prikazuje negativne nalaze kao rezultate pilot studija ili ih navode kao metodološki manje kvalitetne, dok se pozitivni nalazi prikazuju kao potpuno očekivani i metodološki ispravni
- 1.7% priznaje da fabrikuje podatke

Sve QRPs su češće u eksperimentalnim nego u korelacionim studijama.



ohn, L. K., Loewenstein, G., & Prelec, D. (2012). Measuring the prevalence of questionable research practices with incentives for truth-telling. *Psychological Science*, 23, 524-532.



Istraživači ipak nisu jedini odgovorni...

Sistem nagrađuje atraktivne pozitivne nalaze a marginalizuje negativne.

Odakle dolaze ovi obrasci?

Priistrasnost u publikovanju

Editori: od 79 editora visoko rangiranih časopisa 94% tvrdi da ne ohrabruju replikacije (Madden, 1995)

Recenzenti: 60% recenzenata favorizuje nove nalaze u odnosu na replikacije – "waist of journal space" (Neuliep & Crandall, 1993)

Autori: verovatnoća da podnesete za objavljivanje pozitivan nalaz je 8 puta veća u odnosu na to da podnesete za objavljivanje negativan nalaz (Greenwald, 1975)

Pogrešni insentivi za naučna istraživanja

Kompetitivnost

Inovacija se favorizuje u odnosu na robustnost nalaza

„Nulti nalazi“ su devalvirani

Kvantitet ispred kvaliteta – “Publish or perish”



"You are completely free to carry out whatever research you want, so long as you come to these conclusions."

Good scientific practices

-Dobre naučné prakse-



Tri zone promene

Metodologija

Izveštavanje i Diseminacija

Incentivi

Metodologija

Transparentnost u istraživanju

Production Transparency (Open design, Open materials)

Analytic Transparency (Open code)

Data sharing (Open data)

Transparentnost u istraživanju

Pre-registracija

Registered Reports

Peer review before results are known to align scientific values and practices



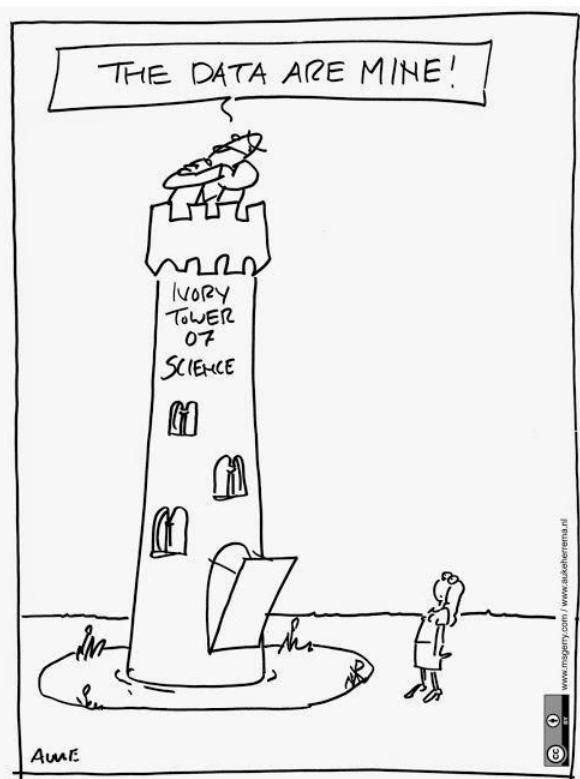
Mora da bude nagrađena!



If you have a project that is entering the planning or data collection phase, we'd like you to try out a preregistration. Through our **\$1 Million Preregistration Challenge**, we're giving away \$1,000 to 1,000 researchers who preregister their projects before they publish them. It's straightforward to complete and will really enhance your research output.

Transparentnost u istraživanju

Open data/Otvoreni podaci



SCENE FROM THE PAST?

Istraživanja finansirana javnim finansijama, uključujući i sirove podatke, pripadaju javnosti!

Istraživači bi trebalo da :

- Omoguće pristup podacima
- Ili objasne zašto to nije moguće..



THE FUTURE?

Transparentnost u istraživanju

Otvoreni podaci: nerazjašnjena pitanja

Transparentnost u istraživanju ↔ pravo na privatnost. Pravo ispitanika na privatnost mora da bude poštovano, i u slučaju postojanja dileme ima prvenstvo u odnosu na otvorenost. Ipak, ako su podaci adekvatno **anonimizovani**, nema prepreka za deljenje.

Ponovna upotreba podataka (Data reuse) ↔ primat u korišćenju. Napraviti balans između ponovne upotrebe podataka i primata originalnih autora u korišćenju. Neke preporuke: embargo od 5 godina na prvenstvo u upotrebi. Smernice takođe definišu i **kako ponovno upotrebljavati podatke**, kao i o tome kako se reguliše **ko-autorstvo**.

Verifikacija ↔ korektan tretman originalnih autora. Kada kod reanaliziramo podatke i planiramo da publikujemo rezultate, **originalni autori bi trebalo da budu o tome obavešteni**. Originalni autori ne mogu da spreče da se ponovne analize sprovedu, ali bi trebalo da imaju mogućnost da reaguju i odgovore ako je potrebno istraživačima koji koriste njihove podatke.

My (precious) data – ko ima pravo prvenstva?

- Istraživači zadržavaju ekskluzivno pravo upotrebe podataka koje su prikupili – nažalost, najčešća praksa
- „Pravo prvenstva“ – istraživači koji su prikupili podatke – 2-5 godine embarga
- Nema prava prvenstva – *first come first served* – ako su istraživači deo panela istraživača (npr. GESIS panel)
- Datasetovi koji su kreirani (prikupljeni) novcem poreskih obveznika ili međunarodnih finansijera - *first come first served* (npr. PISA)



- Sekundarna eksploracija – uvek obavestiti primarne autore
- Koautorstvo primarnih i sekundarnih korisnika – zavisi od autorskih prava

Primer otvorenih podataka

Please use this identifier to cite or link to this item: <http://dx.doi.org/10.23668/psycharchives.4281>

Title: Dataset for: Can the disposition toward psychotic-like experiences contribute to understanding different faces of grandiose narcissism beyond the Big Five? Evidence from a representative sample in Germany

Authors: [Lazarević, Ljiljana B.](#)
[Knežević, Goran](#)
[Bosnjak, Michael](#)

Issue Date: 27-Oct-2020

Publisher: PsychArchives

<https://www.psycharchives.org/handle/20.500.12034/3892>

Primer otvorenih podataka

www.nature.com/scientificdata

SCIENTIFIC DATA

OPEN

DATA DESCRIPTOR

Data from the Human Penguin Project, a cross-national dataset testing social thermoregulation principles

Chuan-Peng Hu *et al.**

In the *Human Penguin Project* ($N=1755$), 15 research groups from 12 countries collected body temperature, demographic variables, social network indices, seven widely-used psychological scales and two newly developed questionnaires (*the Social Thermoregulation and Risk Avoidance Questionnaire* (STRAQ-1) and the *Kama Muta Frequency Scale* (KAMF)). They were collected to investigate the relationship between environmental factors (e.g., geographical, climate etc.) and human behaviors, which is a long-standing inquiry in the scientific community. More specifically, the present project was designed to test principles surrounding the idea of *social thermoregulation*, which posits that social networks help people to regulate their core body temperature. The results showed that all scales in the current project have sufficient to good psychometrical properties. Unlike previous crowdsourced projects, this dataset includes not only the cleaned raw data but also all the validation of questionnaires in 9 different languages, thus providing a valuable resource for psychological scientists who are interested in cross-national, environment-human interaction studies.

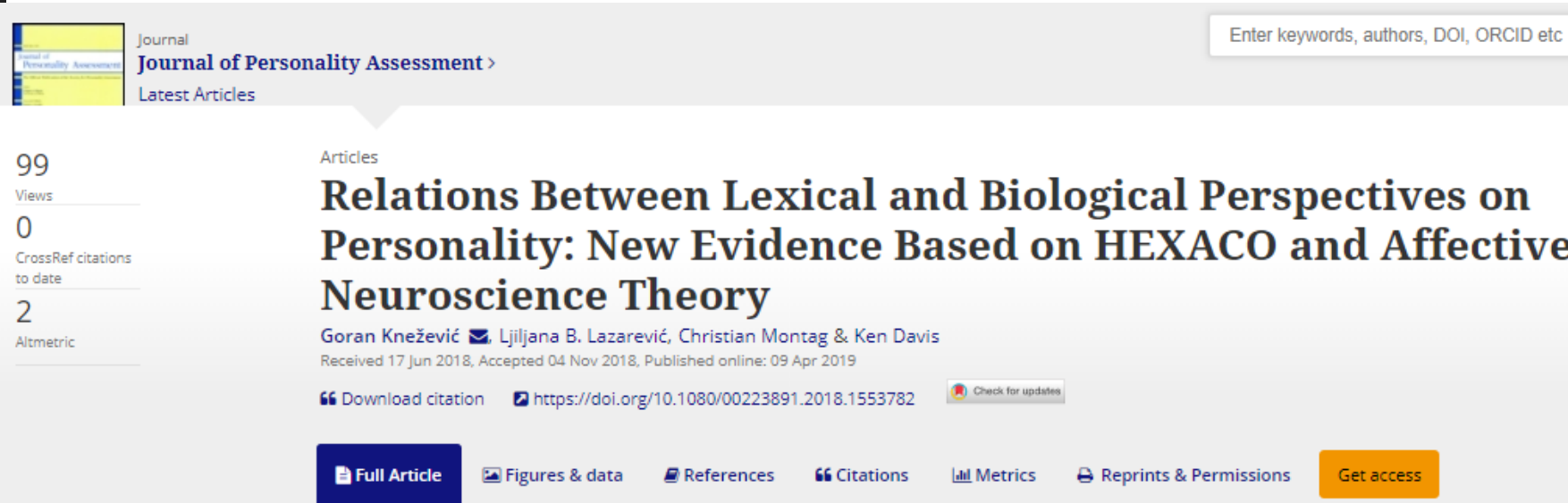
Received: 13 November 2018

Accepted: 25 February 2019

Published online: 17 April 2019

Let's explore it a bit: click [here](#)

Primer otvorenih podataka



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Journal of Personality Assessment >
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Articles

Relations Between Lexical and Biological Perspectives on Personality: New Evidence Based on HEXACO and Affective Neuroscience Theory

Goran Knežević, Ljiljana B. Lazarević, Christian Montag & Ken Davis
Received 17 Jun 2018, Accepted 04 Nov 2018, Published online: 09 Apr 2019

Download citation | <https://doi.org/10.1080/00223891.2018.1553782> | Check for updates

Full Article | Figures & data | References | Citations | Metrics | Reprints & Permissions | Get access

Abstract

We provide evidence on the convergence of language-based questionnaire and biological perspectives on personality traits. The first study, conducted on Serbian students, provided evidence on the position of Panksepp's Affective Neuroscience Personality Scales (ANPS) in the personality space defined by HEXACO facets. The second, replicatory study was conducted on a sample of German young adults. Results show that the instruments based on these 2 approaches target highly similar personality phenomena, which is revealed in the high canonical correlations between them (the first 3 being above .70 in both samples). Despite the overlap, the scales measuring emotional systems do not map onto HEXACO factors one-to-one, and mostly have substantial loading on more than 1 HEXACO factor. The pattern of correlations between HEXACO and ANPS scales was highly similar in the 2 samples. The importance of the findings for the personality taxonomy and theory is discussed.

Let's explore it a bit: click [here](#)

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Sajt nudi obuhvatan pregled tema vezanih za OS naučne prakse i inicijative, otvorene podatke, etička pitanja, politike finansijera i izdavača, nagrađivanje istraživača, itd.

Posetite naš web-sajt:

<https://rdm.open.ac.rs/index.php/rdm>

Izveštavanje i Diseminacija

Uloga naučnih časopisa: TOP guidelines

Citation Standards Describes citation of data	Data Transparency Describes availability and sharing of data
Analytical Methods Transparency Describes analytical code accessibility	Research Materials Transparency Describes research materials accessibility
Design and Analysis Transparency Sets standards for research design disclosures	Preregistration of Studies Specification of study details before data collection
Preregistration of Analysis Plans Specification of analytical details before data collection	Replication Encourages publication of replication studies

ACROSS 3 TIERS

1 DISCLOSURE:
the final research output
must disclose if the work
satisfies the standard

2 REQUIREMENT:
the final research output
must satisfy the standard

3 VERIFICATION:
third party must verify that
the standard is being met

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Badges to Acknowledge Open Practices

META-RESEARCH ARTICLE

Badges to Acknowledge Open Practices: A Simple, Low-Cost, Effective Method for Increasing Transparency

Mallory C. Kidwell^{1*}, Ljiljana B. Lazarević², Erica Baranski³, Tom E. Hardwicke⁴, Sarah Piechowski⁵, Lina-Sophia Falkenberg⁵, Curtis Kennett⁶, Agnieszka Slowik⁷, Carina Sonnleitner⁷, Chelsey Hess-Holden⁶, Timothy M. Errington¹, Susann Fiedler⁵, Brian A. Nosek^{1,8}

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OPEN ACCESS

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Abstract

Beginning January 2014, *Psychological Science* gave authors the opportunity to signal open data and materials if they qualified for badges that accompanied published articles. Before badges, less than 3% of *Psychological Science* articles reported open data. After



Na kraju...

Otvorena nauka transformiše način na koji se istraživanja izvode: istraživači saraduju, znanje se deli tako da **svako može da da svoj doprinos naučnom progresu** kroz efikasniju upotrebu istraživačkih rezultata.

Otvorena nauka predstavlja pokušaj sistematske promene u načinu na koji nauka funkcioniše: otvorena nauka menja modus operandi iz “**publish or perish**” u ideju da **znanje treba da bude deljeno**.

Otvorena nauka nije utopija! Ona daje podsticaje za istraživače i ceo sistem.

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Hvala na pažnji!

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Our papers available at the website of the Lab for the study of individual differences <https://lira.f.bg.ac.rs/en/>

[Dropbox folder with all the materials](#)