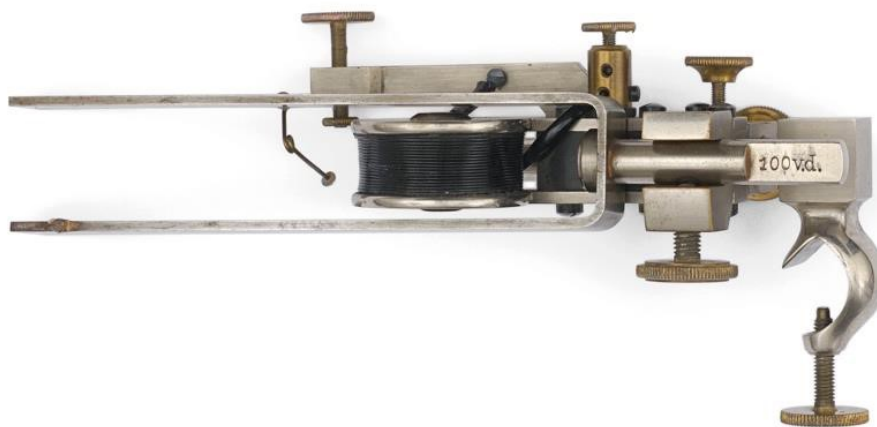XXVIII SCIENTIFIC CONFERENCE

EMPIRICAL STUDIES IN PSYCHOLOGY

31st MARCH – 3rd APRIL, 2022.
FACULTY OF PHILOSOPHY, UNIVERSITY OF BELGRADE
_____

INSTITUTE OF PSYCHOLOGY
LABORATORY FOR EXPERIMENTAL PSYCHOLOGY
FACULTY OF PHILOSOPHY, UNIVERSITY OF BELGRADE

XXVIII SCIENTIFIC CONFERENCE

EMPIRICAL STUDIES IN PSYCHOLOGY

31st MARCH – 3rd APRIL, 2022.
FACULTY OF PHILOSOPHY, UNIVERSITY OF BELGRADE

INSTITUTE OF PSYCHOLOGY

LABORATORY FOR EXPERIMENTAL PSYCHOLOGY
FACULTY OF PHILOSOPHY, UNIVERSITY OF BELGRADE

BELGRADE, 2022

Cover photo:
Electromagnetic tuning fork for direct time recording on kymographic band (E.Zimmermann, Leipzig-Berlin)

From the collection of old scientific instruments of the Laboratory of experimental psychology, Faculty of philosophy, University of Belgrade

Proofreading and layout by Milana Rajić and Milica Ninković

More specifically, temporal distance predicted higher climate change and evolution skepticism, while social distance predicted higher GM foods and genetic editing skepticism. Finally, Study 4 showed that PSYDISC also shapes real-world behavior—hypothetical distance predicted a lower chance of being fully vaccinated against COVID-19 (OR = -.62, *p* = .004). These studies provide robust evidence for the reliability, construct and predictive validity of PSYDISC, which will help to further develop a unifying framework to understand science skepticism across domains.

Keywords: science skepticism, psychological distance, construal level theory, psychological distance to science, scale construction

SCIENTIFIC AND DIGITAL LITERACY AS PROTECTIVE FACTORS TO MISINFORMATION SUSCEPTIBILITY AND VACCINE UPTAKE: EVIDENCE FROM A NATIONALLY REPRESENTATIVE SAMPLE

Marija Petrović
Department of Psychology and Laboratory for Research of Individual Differences, Faculty of Philosophy, University of Belgrade | *marija.petrovic@f.bg.ac.rs*
Iris Žeželj
Department of Psychology and Laboratory for Research of Individual Differences, Faculty of Philosophy, University of Belgrade
Petar Lukić
Department of Psychology and Laboratory for Research of Individual Differences, Faculty of Philosophy, University of Belgrade
Anja Ivanović
Ipsos Strategic Marketing, Belgrade
Predrag Kurčubić
Ipsos Strategic Marketing, Belgrade

Scientific and digital literacy are two similar, but distinct constructs that should enable people to navigate the informational environment. Whilst scientific literacy is often defined as a grasp of elementary scientific facts, digital literacy is a set of habits regarding information consumption (e.g. checking the reliability of sources, triangulating the information). These two important skills should have a protective role when it comes to a. misinformation susceptibility, i.e. discerning factual from false information and to b. making informed health decisions. In this study, we firstly examined the prevalence of scientific literacy, digital literacy and misinformation detection ability on a probability sample nationally representative of Serbia (N = 1006). Second, we mapped out how these skills relate to each other and finally, how this skill set contributes to COVID-19 vaccination status. To this end, the participants completed the Civic Scientific and the Digital literacy scales, as well as the Misinformation Susceptibility test. We found that on average, the participants answered correctly on two thirds (M = 7.99 (SD = 1.91) out of 12) of the scientific literacy questions. As for digital literacy, an average of 51% of participants indicated that they rarely or never evaluate the information they consume online. Furthermore, the participants correctly identified, on average, a total of M = 4.01 (SD = 1.62) out of 8 pieces of news as either true or false. To test the interrelations of these constructs, we ran a regression with two types of literacy as predictors and misinformation detection as the outcome. The model was significant ($F_{(2, 765)} = 15.55$, $p < .001$, $R_{adj}^2 = .04$), with both scientific ($\beta = .138$, $t(764) = 3.807$, $p < .001$) and digital ($\beta = .113$, $t(764) = 3.113$, $p = .002$) literacy contributing to its prediction in the expected direction. We further tested a model with

misinformation detection, digital and scientific literacy as predictors and COVID-19 vaccination status as the outcome ($F(3, 736) = 22.91$, $p < .001$, $R_{adj}^2 = .08$). The only significant predictor in the model was misinformation detection ability ($\beta = .290$, $t(735) = 8.065$, $p < .001$), which was related to higher vaccine uptake. Overall, the levels of scientific literacy we observed are comparable to levels previously reported for EU countries. The results suggest that information appraisal skills are more important than basic scientific knowledge in guiding health decision making.

Keywords: scientific literacy, misinformation susceptibility, digital literacy, media literacy, vaccination uptake

---

COMBINING SCIENTIFIC FACTS WITH PERSONAL STORIES LEADS TO MORE PERSUASIVE VACCINATION COMMUNICATION: A PRELIMINARY SYSTEMATIC REVIEW

Aleksandra Lazić
Department of Psychology and Laboratory for Research of Individual Differences, Faculty of Philosophy, University of Belgrade | *aleksandra.lazic@f.bg.ac.rs*

A popular approach to health communication is the deficit model, which emphasizes the repetition of objective scientific evidence to motivate people to change their beliefs and behaviors. Increasingly, however, health communicators are turning to narratives or the stories people tell. Narratives can be persuasive by fostering engagement with the story and its characters and by provoking an emotional response. Focusing on the domain of vaccination, we conducted a preliminary systematic review to explore how narrative communication compares to factual communication and whether it can influence vaccination outcomes. We identified primary studies through previous systematic reviews and meta-analyses. We additionally searched PubMed, Cochrane Library, Web of Science, and Google Scholar for articles published 2015–2019, with terms such as "story", "anecdote" or "immunization" in the title. We included experimental designs contrasting a pro-vaccine narrative to (a) a control/baseline condition and/or (b) facts-only and statistics-only (including risk) messages. We also included designs testing combined narrative and factual/statistical messages. The review included 17 eligible articles published 2005–2019. The studies were predominantly conducted in the US and concerned the human papillomavirus vaccine (11 articles, respectively). All narrative interventions featured a personal-experience story. We extracted 97 comparisons (k) of intervention groups and contrast groups. The most studied outcomes were vaccination intentions (k = 37), perceived disease risk (k = 18), and general vaccination attitudes and beliefs (k = 15). Compared to control/baseline, narrative-only messages tended to positively affect vaccination outcomes (k = 19/32), rarely backfiring (k = 4/32). Half of the time, narrative-only outperformed facts-/statistics-only messages (k = 23/45), while facts-/statistics-only messages were better in 14/45 instances. Combined interventions were better than the control/baseline (k = 8/8), statistics-only (k = 6/9), and narrative-only messages (k = 2/3). We conclude that a promising strategy in vaccination communication is combining scientific facts with personal stories tailored to the audience's sociocultural characteristics. We give recommendations for public communicators and directions for future research (e.g. larger samples for more precise effect size estimates, tackling conspiracy beliefs, and assessing effectiveness of interventions after a delay).