Studia Psychologica, Vol. 63, No. 2, 2021, 111-113

Editorial

Individual and Social Predictors of Irrational Behavior

We often witness that people make poor decisions either because they have beliefs that lead them to suboptimal decisions or that they lack some specific knowledge that would help them make a better decision. In terms of dual-process accounts, suboptimal reasoning can arise from failures in storage (people do not have the necessary knowledge or information), monitoring (people fail to notice that they need to engage in deliberate processing), and inhibition (people fail to override an incorrect intuitive response) (De Neys & Bonnefon, 2013).

This Special Issue features seven articles that examine individual predictors of several cognitive biases, as well as unfounded beliefs that usually belong among factors that contribute to irrational behavior manifested in rejection of scientific knowledge (Lewandowsky et al., 2013), suboptimal health choices (Douglas et al., 2019), political extremism (van Prooijen et al., 2015), spread of prejudice (Jolley et al., 2020) or support for violence (Jolley & Paterson, 2020).

The first paper, *Mindware instantiation as a predictor of logical intuitions in cognitive reflection test* by Roman Burič and Ľubica Konrádová, examines the role of mindware instantiation by using the two-response paradigm, which makes it possible to take a closer look at its role in both intuitive and analytical responses. In line with the theoretical model of De Neys and Bonnefon (2013), the authors also employed conflict detection measures – confidence in the response and the time needed for the response. The study found that at both initial and final response stage participants were able to detect the conflict between their heuristic intuition and logical structure of the cognitive reflection test. This is important, because it indicates that people do not rely on the slower and more effortful analytic processes to access the normative solution and recognize that it contradicts the intuitive heuristic answer when solving reasoning problems. Rather, they make use of reasoning rules and knowledge that have been learned to such extent that they can be applied quickly and without effort, the so called logical intuitions, to recognize the conflict in reasoning. Consistently with the abovementioned model, mindware instantiation is the key variable predicting the availability of logical intuitions when solving the tasks of the cognitive reflection test.

The next paper, *Cognitive Predictors of Delay Discounting in Monetary Choices* by Viera Bačová and Jakub Šrol examined delay discounting, which is the tendency to choose a smaller-sooner reward over a larger-later reward, and its cognitive predictors, specifically general cognitive ability, cognitive reflection, scientific reasoning, and objective numeracy. While they found that cognitive reflection and cognitive ability correlated with delay discounting, which corroborated previous findings, one of their original contributions was that scientific reasoning also correlated with temporal discounting. Importantly, the study showed that the bias susceptibility was the only variable that predicted delay discounting in the regression analysis where all other variables were accounted for. That means that delay discounting has important associations with other tasks from the heuristics and biases literature and can be (at least partially) conceived of as a measure of rational thinking (Stanovich et al., 2016).

The following paper – *Does Action vs. State Orientation Really Matter in The Susceptibility to Sunk Cost Fallacy? A Conceptual Replication Study* – by Miroslava Galasová and Matúš Grežo examines one of the manifestations of suboptimal decision-making, i.e. sunk cost fallacy that

describes the behavior of people who invest additional resources into a failing activity just because they have already invested a lot in it. In this case they focus on the theory of action versus state orientation that suggests that state-oriented people are more susceptible to sunk cost fallacy than action-oriented people because they ruminate about past costs and are reluctant to change their course of actions. In their paper they replicated and extended the study by van Putten et al. (2010). While their study failed to replicate the results of van Putten et al. (2010), because action versus state orientation did not predict the susceptibility to sunk cost fallacy, and neither did gender or internalization moderate the relationship between action versus state orientation and susceptibility to sunk cost fallacy, it did highlight the importance of high-powered replications that are an essential part of good research practice.

In the next paper, *Everybody bullshits sometimes: Relationships of bullshitting frequency, overconfidence and myside bias in the topic of migration,* Vladimíra Čavojová and Ivan Brezina shift the focus of the Special Issue from cognitive biases and their predictors to a relatively new research territory of bullshit. While previous research paid attention mostly to the recipient of the bullshit, the authors of this paper examine the relationship between the two types of bullshitting (persuasive and evasive) and overconfidence and myside bias in the context of migration. Besides expanding the new field of bullshit research and validating new Bullshitting Frequency Scale by Littrel et al. (2020), the original contribution of the paper lies in highlighting the two types of bullshitting and their different pattern of relationships with myside bias and overconfidence.

The next two papers deal with epistemically suspect beliefs of various types. First, Peter Teličák and Peter Halama in the paper titled *Maladaptive Personality Traits, Religiosity and Spirituality as Predictors of Epistemically Unfounded Beliefs* study whether spirituality, religiosity and maladaptive personality traits, as measured by the PID-5 (antagonism, psychoticism, disinhibition, negative affectivity, detachment), predict epistemologically unfounded beliefs (conspiracies, pseudo-science and paranormal beliefs). While all three types of epistemically suspect beliefs (paranormal, conspiracy, and pseudoscientific) were predicted by psychoticism, spirituality and religiosity predicted only paranormal beliefs with very small effect size. Their results comprise further evidence that some maladaptive personality traits (especially psychoticism) play a significant role in epistemically suspect beliefs and should be taken into account when considering sources of these beliefs at the individual level.

In the paper *The Analytic Cognitive Style Predicts Conspiracy Beliefs: Replication Study on a Non-Student Sample,* Eva Ballová Mikušková focuses specifically on one type of epistemically suspect beliefs, i.e. conspiracy beliefs and their relationship with conspiracy mentality and analytic cognitive style. In the study, conspiracy beliefs were predicted by a lower level of cognitive reflection and motivation for rational integration. Taking into account the considerable cultural specificity of conspiracy theories, the study built upon previous results regarding the links between analytic thinking and conspiracy beliefs among pedagogy students in Slovakia and aimed to replicate them with a more general sample of Slovak participants. Besides replicating the widely researched link between conspiracy beliefs and lower analytic thinking, the study's contribution lies in showing the high proliferation of certain conspiracy theories (such as those related to pharmaceutical companies, Muslim immigrants and Roma minorities in Slovakia, or the Velvet revolution) in the Slovak population, since almost one third of the participants believed some of these accounts.

The special issue closes with the paper *Teachers' Beliefs About Memory: A Vignette Study of Trainee and In-Service Teachers* by Jonathan Firth that studies false beliefs in teachers. In this case, false beliefs are not epistemically suspect beliefs but misconceptions related to memory that can affect the teacher´s expectations from the pupils and their instruction practices. The results pointed to the areas of the mismatch between teacher beliefs and recommended evidence-based teaching practices, and provided evidence that, contrary to what might be expected, in-service teachers neither perform better than trainee teachers overall, nor does their alignment with the evidence appear to improve in line with experience. Such findings have implications for the judgements teachers make in the classroom.

This short list of the articles in this Special issue suggests that we were able to cover different areas of this interesting research. Moreover, we would like to highlight that in Studia Psychologica, we encourage open science practices and we are proud to announce that all papers in this issue come either with publicly available materials or data (or both), and two of them are replications studies. We believe that promoting open-science practices, replications and pre-registered studies is the cornerstone of modern psychological science and we, as well as the rest of the editorial team, will strive to uphold the high standards for transparency and replicability in research published in Studia Psychologica.

As editors, we are aware that the articles in this issue brought only partial answers to very specific questions, but we hope that they will stimulate further research in this area. We also hope that the readers will find the articles informative and will enjoy reading them.

Vladimíra Čavojová and Jakub Šrol
Editors

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