Cognitive-motivational predictors of epistemically unwarranted beliefs

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Introduction

- The epistemically unwarranted beliefs are defined as those types of beliefs, which are outside the totality of evidence and knowledge that is available to human knowledge seekers (Lobato et al., 2014).
- Among others, they include conspiracies, paranormal beliefs and pseudoscience beliefs.
- The previous research suggested that cognitive processes (e.g., analytical thinking) can play a certain role in the acceptance of such beliefs (Swami et al., 2014).

Method

- **Sample**
 - 801 participants (391 males, mean age 42.6 years) recruited from online panel of a research agency in Slovakia.
- **Measures**
 - The **Epistemologically Unfounded Beliefs Scale** (Halama, 2018) for measuring beliefs in conspiracies (e.g., pseudoscience and paranormal phenomena)
 - **Personal Need for Structure** (Neuberg & Newsom, 1993) measuring individual differences in the preference for simple cognitive structure
 - **Need for Cognition Scale–6** (Lins de Holanda Coelho et al., 2018) measuring individuals’ tendency to engage in and enjoy effortful cognitive activity
 - Brief version of **Need for Closure Scale** (Roets & Van Hiel, 2011) measuring the desire to have answers to one's questions and the desire to avoid confusion and ambiguity. It consists of five facets: preference of order, preference for predictability, need for decisiveness, discomfort with ambiguity, and closed-mindedness.

Aim of the study

- The current study focuses on the specific cognitive motivation variables representing motivational tendencies toward the preference of specific ways of dealing with cognitive-informational tasks and their relationship to epistemically unwarranted beliefs

Results

Table 1 The results of three multiple regression analyses (standardized betas) with cognitive-motivation variables as predictors and epistemically unwarranted beliefs as dependent variables

Predictors	Conspiracy beliefs	Pseudoscience beliefs	Paranormal beliefs
Personal need for structure	-.08	-.20**	-.11*
Need for cognition	-.06	-.15**	-.09*
Need for closure	.13*	.18**	.15**
R ²	.013	.045	.023

Note. * p<=.05, ** p<=.01

Table 2 The results of three multiple regression analyses (standardized betas) with facets of need for closure as predictors and epistemically unwarranted beliefs as dependent variables

Need for closure facets	Conspiracy beliefs	Pseudoscience beliefs	Paranormal beliefs
Order	-.05	-.05	-.03
Predictability	.05	-.04	-.01
Decisiveness	.09	.06	.15**
Ambiguity	-.09	-.06	-.01
Closed-mindedness	.12**	.20**	.04
R ²	.025	.035	.024

Note. * p<=.05, ** p<=.01

Conclusion

- The results support the hypothesis that the cognitive motivation can contribute to the acceptance of epistemically unwarranted beliefs, however, effect sizes are rather small.
- As need for closure was found to be a predictor of all types of unwarranted beliefs, it seems that especially cognitive preference for a quick answer on a given topic and closed-mindedness promote acceptance of such beliefs.

References

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