

What are they afraid of? Cognitive predictors of risk assessment related to refugees

Jana Bašňáková, Lenka Valuš

Institute of Experimental Psychology, Center of Social and Psychological Sciences SAS
Dúbravská cesta 9, 84104 Bratislava, Slovakia
jana.basnakova@gmail.com; valus.lenka@gmail.com

Abstract

In our study with a representative sample of Slovak public ($N=500$), we examined whether risk assessment related to refugees can be predicted with education, science literacy, cognitive reflection, open-minded thinking, and subjective and objective knowledge. Participants' estimates of how much they know were grossly overstated. Still, this subjective feeling of being knowledgeable about the crisis coupled with the participants' level of closed-mindedness, were the strongest predictors of perceived risks and fear associated with refugees. Yet, the predictive accuracy of our models substantially increased after including personal values, such as conservatism and racism, suggesting that cognitive factors alone cannot explain risk perception in this domain.

1 Introduction

During the refugee crisis in 2017, there was a marked increase in public mistrust and fear associated with the presence of war refugees from conflicts in Syria and elsewhere in our country, as well as in the rest of the EU. This was despite the fact that Slovakia was neither a transit country, nor their preferred destination. In order to understand these sentiments, we examined what cognitive factors are associated with feelings of fear and risk perceptions related to refugees.

We hypothesized that risk assessment would be influenced by the following factors: a) how much people know about the crisis' sources and outcomes, which we probed at both a subjective ("How much had you known about the refugee crisis until today?") and objective level [5 multiple-choice questions about basic facts such as what population groups are mostly commonly fleeing their homes (women, children, or men) or which countries have received the largest share of refugees (those neighboring the conflict zones or Western European countries)]; b) education; c) basic scientific literacy, including awareness of how scientific knowledge is generated; d) the degree to which they are open to reassess their beliefs in light of new evidence; and e) the tendency to react intuitively without further cognitive reflection. Apart from cognitive predictors, we

also included items about participants' values, such as their degree of conservatism, support for state interventions and racist attitudes.

2 Method

A representative sample of 500 Slovak adults (50% women), recruited via a market research agency, aged 18 to 86 years ($Mdn=39$, $IQR=23$) took part in our online questionnaire. Their education level was distributed as follows: 9% elementary school, 31% vocational high school, 40% high school with diploma, 20% university degree.

Half of the sample answered refugees-related items first: subjective and objective knowledge, and perceived risks and fear (2+2 items). The other half filled in the questionnaires first: i) the science literacy scale (SL; Miller, 1998; 9 items), ii) the scientific reasoning scale (SR; based on Drummond & Fischhoff, 2017; 7 items), iii) the cognitive reflection tests (CRT; Dudeková & Kostovičová, 2015; Sirota et al., 2018; 1-factor solution, 13 items, $\alpha=.82$) iv) the actively open-minded thinking scale (AOT; Svedholm-Häkkinen & Lindeman, 2018; 1-factor solution, 11 items, $\alpha=.74$), v) personal values scale (Bútorová et al., 2012; European Social Survey, 2015; 3-factor solution, racism: 4 items, $\alpha=.70$; conservatism: 3 items, $\alpha=.75$; state interventions: 2 items, $\alpha=.63$).

3 Results

Subjective knowledge (SK; $Mdn=4$, $IQR=1$) was not correlated with objective knowledge (OK; $Mdn=1$, $IQR=2$), $r_s=.04$, $p=.421$. Participants' estimates of how much they know were severely overstated - the average participant correctly answered only 25% of the knowledge questions, while estimating their expertise at 70%.

However, SK was the strongest cognitive predictor of perceived risks (PR; $\beta=.28$) and perceived fear (PF; $\beta=.24$), with AOT being the second one (PR: $\beta=-.15$, PF: $\beta=-.17$). Intriguingly, PR positively correlated with SR ($\beta=.12$). The models explained 11.6% of PR ($p<.001$) and 9.4% of PF ($p<.001$) variance.

After including personal values, predictive power of our models increased. PR was predicted by racism ($\beta=.43$), SK ($\beta=.20$), conservatism ($\beta=.10$) and SR ($\beta=.09$), $R^2=.29$, $p<.001$. PF was predicted by racism ($\beta=.41$), SK ($\beta=.16$), AOT ($\beta=-.13$) and state interventions ($\beta=.08$), $R^2=.27$, $p<.001$.

4 Discussion

The most surprising finding was one of no correlation between how much people objectively knew about the crisis and how much they thought they knew. In fact, the average participant correctly answered only one fourth of the multiple-choice knowledge questions, although their subjective estimate was seventy percent. This suggests that much of what people thought they knew were in fact inaccurate information or myths about refugees.

Crucially, this false sense of being knowledgeable about the refugee crisis, together with lack of open-minded thinking, significantly predicted risk assessment and the subjective feeling of fear associated with refugees. A possible explanation is that this might be the result of consistent “scare-mongering” by various parties in Slovakia who reinforced negative information about refugees and framed the situation as a threat to our national sovereignty, culture and religion (e.g., Chadwick, 2016). Coupled with dogmatic thinking and fact resistance characteristic for people who score low on the open-minded thinking scale, it is likely that those who did not actively seek more accurate information about what is going on were led to believe that the threat associated with refugees is indeed very high.

Intriguingly, higher risk was also positively correlated with scientific reasoning skills. This is an unexpected finding, as we predicted that those who have the tools to interpret complex information - such as scientific studies - would be able to accurately interpret information related to the crisis and thus show lower risk perception.

The predictive accuracy of our models substantially increased after including a measure of personal values, such as conservatism and racist attitudes. People who considered refugees a risk scored substantially higher on items which reflected racist attitudes towards the Roma minority or ethnic minorities in general - for example, they endorsed the view that there are genetic differences in how much people from different ethnic backgrounds like to work, or in their intelligence. In addition, they also scored higher on a measure of conservatism, taking a stand against equal rights for homosexuals and being anti-choice on the issue of abortion. Thus, the resulting picture is one where risk perception cannot be explained by cognitive factors only. Our data suggest that it is a combination of not having accurate information about the situation, being a

dogmatic thinker and having values which are associated with a non-egalitarian view of the world.

Acknowledgment

This research was supported by VEGA grant No. 2/0085/17 – ‘Cognitive limits of effective information processing and communication’ and by the Institute for Strategic Analyses as a part of the project “Social Analysis of Slovakia”.

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