

The Level of Knowledge about Islam and Perception of Islam among Czech and Slovak University Students: does Ignorance Determine Subjective Attitudes?¹

Josef Novotný, Filip Polonský²

Department of Social Geography and Regional Development, Faculty of Science, Charles University, Prague, Czech Republic

The Level of Knowledge about Islam and Perception of Islam among Czech and Slovak University Students: Does Ignorance Determine Subjective Attitudes? In this article, we examine existing levels of knowledge about Islam and other characteristics of respondents in regard to attitudes towards Islam and anti-Muslim prejudice. The analysis uses expectations derived from the integrated threat theory and inter-group contact theory when drawing on a questionnaire survey conducted among 716 university students interviewed in seven Czech and Slovak cities. Our results showed that the level of knowledge about Islam is negatively associated with perceived threats (such as fears of Islamic terrorism, and perception of problems with integration of Muslims into Czech/Slovak society) and, indirectly through the latter, with prejudice against Muslims. The analysis also confirmed some other (statistically more important) correlates of both perceived threats and anti-Muslim prejudice. These are personal contacts with Muslims and the Islamic world that are associated with more positive attitudes and affiliation to a church which is associated with more negative attitudes towards Islam.
Sociológia 2011, Vol. 43 (No. 6: 674-696)

Keywords: attitudes; Muslims; Islam; knowledge; prejudice

1. Introduction

Intercultural attitudes and, specifically, attitudes towards Muslims in European societies have attracted considerable attention in recent years. There is widespread interest in understanding what the underlying factors of both real and perceived tensions are and how they can be dealt with. The main goal of this paper is to seek to contribute to this understanding by exploring whether and how factual knowledge about Islam (*vis-à-vis* other measurable characteristics of respondents) affects subjective attitudes towards Islam and Muslims. Based on data from the survey conducted among 716 university students in Czechia and Slovakia, we use expectations derived from the inter-group contact theory and integrated threat theory and examine the relationships between: (a) objective knowledge about Islam and the Islamic world, (b)

¹ This article was written as part of the research project 'Perception of Islam and the World of Islam in the Czech Republic and Slovakia' funded by CERGE-EI Foundation under a program of the Global Development Network. All opinions expressed are those of the authors and have not been endorsed by CERGE-EI or the GDN. The authors also acknowledge support provided by the Ministry of Education, Youth and Sports of the Czech Republic, project no. MSM0021620831 "Geographic Systems and Risk Processes in the Context of Global Change and European Integration."

² Address: Josef Novotný, Filip Polonský, Katedra sociální geografie a regionálního rozvoje, Přírodovědecká fakulta, Univerzita Karlova, Albertov 6, 128 43 Praha 2, Czech Republic. Phone. 00420-2-2195 1396. E-mail: pepino@natur.cuni.cz; filip78@gmail.com

subjective attitudes towards Islam and Muslims, and (c) other characteristics of respondents.

The remainder of this paper is divided in the following sections. The next section (Section 2) provides a brief discussion of existing theoretical and empirical evidence that is used in order to formulate hypotheses examined in the analysis. We continue with comments on the design of our survey and participants (Section 3), and construction of measures (Section 4). In Section 5 we present the results of the multivariate statistical analysis. The article closes with a summary of results and concluding remarks in Section 6.

2. Expectations and existing evidence

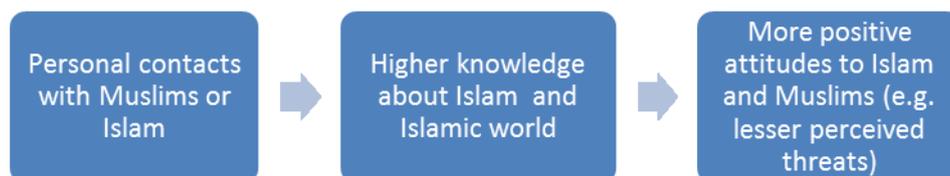
Although there is a body of scientific literature on various determinants of prejudices towards Muslims, as far as we know, the role of objective knowledge about Islam (i.e. not merely the level of education) has not yet been examined. This is surprising given the practical relevance of this subject that stems from the fact that, in contrast to some other more frequently studied mediators of subjective attitudes and prejudice, the quality and structure of knowledge can actively be stimulated. Two inspiring theories that can be utilized for the formulation of some initial expectations are the intergroup contact theory (e.g. Brown and Hewstone 2005, Pettigrew 1998) and the integrated threat theory. (e.g. Stephan and Stephan 1985, Stephan et al. 1999) Both of these theories make slightly different (but connected) assumptions about the role of knowledge regarding the out-group in the process of the formation and mediation of prejudices against this out-group.

2.1. Contact hypothesis

The intergroup contact theory draws on the so-called contact hypothesis that can be traced back to Allport. (1954) He argued that prejudices about the out-group can effectively be reduced by interpersonal contacts between the majority and out-group in question. Allport's definition of prejudice is "an antipathy based upon a faulty and inflexible generalization." (Strabac and Listhaug 2008: 269) Such stereotyping is typically based on the process of the categorization of people. The basic idea of the intergroup contact theory is that contacts with out-group members can lead to anxiety reduction, empathy, and a re-conceptualization of the out-group categories and can thus be instrumental in the reduction of stereotypes and prejudice. (Pettigrew 1998, Rothbart and John 1985, Pettigrew and Tropp 2008) The intergroup contact is consequently understood as both a cognitive process of obtaining more objective knowledge about the out-group and a behavioural process of changing attitudes towards the out-group. Learning about the out-group as well as about its broader cultural environment can be considered as one of the most important ways of

mitigating negative attitudes. On this basis, in Hypothesis 1, shown in Figure 1, knowledge about Islam is considered as a mediator of the relationship between contacts and attitudes.

Figure 1: **Hypothesis 1 – contact, knowledge, attitudes**



Importantly, the eventual reduction of prejudice is seen as conditional to certain circumstances under which the contacts occur. Understandably, the out-group members should not behave consistently with original stereotypes, they should not be perceived as untypical representatives of their cultural group, and the contacts should be relatively frequent. (Rothbart and John 1985) On the other hand, Pettigrew and Tropp (2006) in their overview of empirical literature testing the contact hypothesis (713 samples from 515 studies) found out that the conditions under which the contacts occur are less restrictive than assumed.

In contrast to most Western European countries, people in Czechia and Slovakia have fewer opportunities to interact with a local Muslim population. The consideration of the contact hypothesis for the present purposes is nevertheless still relevant, as 10% of our respondents reported that they have or had a Muslim friend and another 23% that they have occasionally met someone who is Muslim.

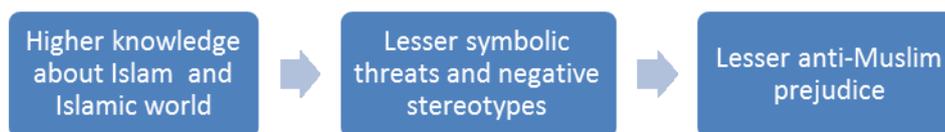
2.2. The impact of knowledge on perceived threats

The intergroup contact theory is related to the integrated threat theory in which contact with the out-group represents one of the possible determinants of lesser perceived threats and stereotypes and, consequently, also lesser prejudice. Importantly with respect to the present analysis, knowledge about the out-group is conceptualised as another antecedent of threats (in addition to the intergroup conflict, status inequalities, and in-group identification – see for example Stephan et al. 1999: 620). The less people know about the out-group's beliefs, norms, roles and behaviour patterns, the more likely they are to perceive the out-group as threatening the in-group. (Stephan et al. 1999) There are then four types of threats identified in the integrated threat theory as mediators causing prejudice. Intergroup anxiety refers to the personal experience of being threatened while interacting with members of the out-group. Realistic threats are perceived threats to the political and economic power of the in-group as well as threats to its physical or material well-being.

Symbolic threats comprise perceived differences in morals, standards, beliefs, and attitudes between the groups. Finally, the fourth group refers to negative stereotypes that are commonly associated with threats and that may precipitate expectations of negative events. (Stephan et al. 1999) The resulting prejudice may thus have significant influences on people's behaviour.

While there are a large number of empirical studies drawing on the integrated threat theory, relatively few of them examine the formation of prejudices against Muslims or Islam. (such as González et al. 2008; McLaren, 2003) Based on the analysis of attitudes amongst Dutch adolescents, González et al. (2008) confirmed the general suitability of the integrated threat theory for understanding anti-Muslim attitudes, while they stressed higher importance of symbolic threats and stereotypes in comparison to realistic threats as mediators of the anti-Muslim prejudice. These findings are important in the present context, as we also focus on symbolic threats and negative stereotypes as possible mediators between the knowledge and anti-Muslim prejudice (see Hypothesis 2 in Figure 2).

Figure 2: **Hypothesis 2 – knowledge, threats and stereotypes, and prejudice**



2.3. *Potential impacts of other characteristics of respondents*

While investigating the links between the respondents' knowledge and subjective views on Muslims and Islam, we are additionally interested in how both knowledge and subjective views are structured by the characteristics of respondents. At least regarding the potential correlates of the subjective views, we can draw on numerous empirical studies examining the individual level determinants of various forms of ethnic prejudice. Among other factors, correlates such as education, socio-economic status and urban residence have frequently been suggested as being negatively associated with the extent of reported prejudice whereas the age of respondents or their level of religiosity have been found to be positively associated. (Carter et al. 2005; Hello et al. 2002; Evans and Need 2002; Semyonov et al. 2004; Chandler and Tsai 2001; Scheepers et al. 2002; Coenders and Scheepers 2008) However, it should be added that, while the results on education appear to be quite robust (Hello et al. 2002), inferences for other factors are often dependent on the specifications of particular studies. (see Strabac and Listhaug 2008: 270-272)

Although most of the abovementioned studies do not address prejudices specifically against Islam, their findings may still be inspiring for this analysis

because they suggest some expectations and factors that can be examined. The level of education and age are not very relevant here because all of the respondents were undergraduate university students and, with some rare exceptions, they were of a similar age. Instead of the level of education, we will inspect the effects of the students' study specialization. It can be expected that students of humanities and other social science disciplines will express better knowledge about Islam and also lesser perceived threats and prejudice than students with a technical or natural sciences background. In addition, we will inspect the effects of urban-rural origin, economic situation, and the respondents' religiosity in terms of both religious affiliation and religious involvement. As religiosity is generally higher in Slovakia than in Czechia (compare Havlíček and Hupková 2008 and Podolinská 2010), the nationality of the respondents may have a possible effect as well. This is also supported by the findings of Strabac and Listhaug (2008) who examined cross-country variation within the context of anti-Muslim prejudice in Europe. Although the authors confirmed generally more negative attitudes towards Muslims in Central and Eastern Europe than in Western Europe, regarding the two countries examined here, this was the case only for Slovakia. The level of negative attitudes reported by the Czech respondents was even slightly lower than in Western Europe.

3. The questionnaire survey

The sample of respondents was composed of the second year and older undergraduate students interviewed during May and June 2008 in four Czech and three Slovak university centres (Prague, Brno, Ostrava, and Plzeň; Bratislava, Banská Bystrica, and Košice). The structure of respondents by Czech and Slovak universities included into the survey appears in Appendix 1. The stratified sampling was applied by obtaining the sample structured approximately proportionally to the actual distribution of the surveyed population on the basis of the students' specialization and regional allocation. The selection of respondents was then made on a random basis by contacting them personally in the halls of their universities. In this way, a statistically appropriate sample size of 716 valid questionnaires was gathered. This sample does not include six respondents with other than Czech or Slovak nationality who were excluded from the analysis (another 13 respondents with Czech or Slovak nationality but different citizenship were included).

For individual questions, the percentage of values missing was not more than 12% with an average of 4%. The treatment of missing values for the purposes of the statistical analysis is described below in the sections devoted to the construction of measures. We do not expect any significant bias associated with non-participation in the survey (the most common reason was a lack of

time, while there was only one case of a student who refused to participate due to aversion to the topic).

Obviously, university students differ in many respects from the overall population. For example, it can be expected that they tend to travel more, they are more familiar with life in Czech and Slovak large cities (where they study), and they are on average more open to cultural diversity. These differences don't allow the generalising of results to the overall population. The survey among university students was nevertheless preferred for several reasons. University students are a more homogeneous group so that the statistical representativeness can be reached more easily. It is also not unreasonable to expect that there is a generally lower level of knowledge about Islam and Muslims among the overall population with a prevalence of the most pronounced stereotypes. It can be assumed that the analysis conducted among university students may uncover some more nuanced features in comparison to those identifiable within the overall population. Last but not least, as our respondents are recent high-school graduates, their knowledge and opinions are more likely to reflect something about the information acquired in the course of the education process, though the impact of school education can hardly be filtered out from other sources of information about Islam (with the information from popular media in the forefront).

The questionnaire was divided into four sections dealing with the following matters: (A) knowledge about Islam as a religion; (B) subjective views on Muslims and Islam; (C) geographic knowledge about the Islamic world; and (D) other personal characteristics of respondents. The complete survey instrument translated into English appears in Appendix 2 (during the survey, Czech and Slovak forms were used).

4. Measures

4.1. *The level of knowledge*

For the purposes of statistical analysis, we worked with the composite score K_K , which measures the aggregate level of objective knowledge about Islam and the Islamic world. The calculation of K_K was based on the answers to all of the questions that assessed the respondents' knowledge about both Islam as a religion and the geographical extent of in the world in sections A and C except two items C4 and C5 (map drawings) which are difficult to quantify. For the calculation of K_K , the missing values were replaced by zero (don't know). The composite score was calculated as follows: For each correct answer to closed questions (10 questions) one point was attributed to the value of K_K , while each correct answer to open questions (relating to the five pillars of Islam, forbidden meals and drinks, and four countries with the largest population of Muslims) accounted for $\frac{1}{2}$ a point. As such, K_K can attain values

between 0 and 16.5. The average K_K corresponds to 7.07 with a standard deviation of 2.37³.

4.2. *Subjective views and attitudes*

Because of different dimensions covered by particular questions assessing subjective views on Muslims and Islam (section B of the questionnaire), we decided to analyze selected questions as separate measures. Here the cases with missing answers were excluded.

After a pre-screening of existing bivariate relationships between a wide range of questions that assessed threats and stereotypes about Islam and Muslims, four dichotomous measures were constructed for the multivariate analysis. The first two measures draw on opinions about the militancy of Islam in comparison to Christianity (B4)⁴ and on the fanaticism of Muslims in comparison with ordinary Czechs/Slovaks (B5). The third measure addresses the respondents' fears of Islamic terrorism when considering three different scales of its operation, including views on the local (within Czechia/Slovakia), European, and global situation (B6). For the analysis, we constructed a dichotomous variable that aggregates answers to the three sub-questions by considering the subgroup of those who reported no fears of Islamic terrorism (on either spatial scale) versus the rest of the respondents. The fourth measure focuses on perceived threats or anxiety associated with real or expected difficulties in dealing with the integration of Muslims into Czech and Slovak society assessed by the question B2: "Can a faithful Muslim live in our (i.e. Western-like) society without serious problems?"

Finally, question B9, which addresses perceived social distance in terms of the desirability of acceptable neighbours, is considered as a proxy for measuring the extent of prejudice against Muslims and Islam. The respondents were asked to order five alternatives of minority groups selected purposely taking into account the Czech and Slovak context. The average ranks from those assigned by respondents to particular groups correspond to: 1.6 for German (SD = 1.1), 2.7 for Vietnamese (SD = 1.0), 2.8 for Ukrainian (SD = 1.1), 3.3 for Arab Muslim (SD = 1.2), and 4.5 for Romany (SD = 0.9)⁵. Differences between the means are statistically significant at the 0.01 level

³ Obviously, such a simple construction of the composite score may be problematic because it doesn't reflect differences in the difficulty of particular questions. In order to test the relevance of this problem, we also attempted to re-calculate the composite index using weights proportional to the frequency of incorrect answers to particular questions on which the composite measure is based. However, the weighted and un-weighted composite indexes were highly correlated (with the Pearson correlation of 0.93) so that we eventually decided to use the un-weighted composite score.

⁴ Note that the term "militancy" was applied in the questionnaire without any explicit reference to Islamist terrorism.

⁵ We are well aware of the facts that Arab doesn't equal to Muslim and that the term Arab Muslim (and also Romany) is not consistent with nationality categories included such as German, Vietnamese, and Ukrainian. However, we decided to mix the religious, ethnic, and nationality categories and use these terms together in order to allow comparison of Arab Muslim with the most frequent minority groups purposely selected considering the Czech and Slovak context.

except that between Vietnamese and Ukrainian. The average rank assigned to an Arab Muslim corresponds to the respective measure of anti-Muslim prejudice, while keeping in mind the ordinal character of the variable.

4.3. *Other characteristics of respondents*

Both the religious affiliation and religiousness (religious involvement) of respondents were assessed by questions D1 and D2. As the expected significant statistical association between these variables has been confirmed, we use the former in the analysis. The sample contained 228 Roman Catholic respondents, 34 Protestants, and 46 reported other religions. Only one Muslim student was interviewed and we excluded this respondent from the analysis. In addition, 124 respondents declared themselves as atheists and 267 of them reported that they do not belong to any religion (non-denominational). Given the numbers of respondents in each particular group, we decided to consider three broader categories in our analysis including atheists and non-denominational (391 respondents), Roman Catholics (228), and other “minor” religions (80).

The extent of intergroup contacts was addressed by two questions. The first one (D3) concerned the extent of personal contacts that respondents have or had with Muslims and the second one (D4) considered the extent of their contacts with the Islamic world (the experience of visiting an Islamic country). Both of these questions were rated on a 3-point scale: no contact, passive contact, and active contact. In the statistical analysis, we either use the 3-point scale or purposely combine these categories into a dichotomous measure. The distribution of answers to these questions was as follows: One tenth of respondents reported they have or had a Muslim friend and 23% of them have occasionally met someone who is Muslim. Similarly, 9% had travelled in an Islamic country and another 13% had been to an Islamic country but only for holidays by the sea.

For the purposes of our analysis, we consider four broader groups of study specializations: technical and applied disciplines (28% of respondents), natural and health sciences (20%), law and economics (27%), other social sciences and humanities (25%).

Other surveyed characteristics of respondents were their gender (with male to female ratio 53:47) and age (with the average corresponding to 22.1, SD=2.1), the locality they come from (with urban to rural ratio 85:15), the estimated net income of their households, the city where they study, their nationality, and their citizenship. Although the survey took place in seven cities, after the pre-screening of the data we decided to consider only four broader categories including Prague (32% of respondents), the rest of Czechia (28%), Bratislava (20%), and the rest of Slovakia (20%). Only 16 of the

students interviewed were neither Czechs (392 respondents) nor Slovaks (301), and the figures on citizenship differ negligibly.

5. Results

The statistical analysis is divided into three steps. First, we examine statistical relationships between the level of knowledge about Islam and the characteristics of respondents. Second, we focus on the correlates of subjective views in terms of selected measures of perceived threats and stereotypes. Finally, in the third step we explore the effects of the measures of perceived threats and selected characteristics of respondents on our proxy of anti-Muslim prejudice.

5.1. *The level of knowledge and other characteristics of respondents*

Firstly, using a flexible generalized linear model where the composite score of the level of knowledge (K_K) is considered as a dependent variable, we examine the main effects of the set of other independent predictors selected from the group of respondents' characteristics. This set was specified with consideration given to our theoretical assumptions and the inspection of bivariate associations between different respondents' characteristics. More concretely, the final model includes both measures of intergroup contact, religious affiliation, gender, specialization, and location of study. Other investigated factors were also tested but they have been found redundant⁶. Given the few missing values, the sample size for the present model corresponded to 686 respondents. The results are shown in Table 1.

Importantly, in accordance with the first part of Hypothesis 1, both measures of personal contact with Muslims and contact with the Islamic world have been found statistically significant predictors of better knowledge about Islam and Muslims. Another interesting finding is a confirmation of the significant impact of religious affiliation. More concretely, the respondents in the category of other minor religions have a significantly better objective knowledge than the rest of the respondents. On the other hand, Roman Catholic respondents do not differ significantly from atheists and non-denominationals in their level of knowledge about Islam.

Congruently to our expectations, the impact of the field of study has also been documented, even when controlling for the effects of other variables. A significantly lower K_K has been found for students of technical and natural science disciplines in comparison with those studying social science disciplines (humanities, law and economics). In contrast to the examination of bivariate

⁶ The variables of urban-rural origin, estimated household income, and age have proved to be statistically insignificant and with negligible effects on the model parameters. The nationality of the respondent was not included because of its significant association with the location of the respondents' study.

associations, the multivariate analysis has revealed gender as another significant determinant of the level of knowledge about Islam (higher K_K of male respondents). Finally, the analysis confirmed a higher knowledge of respondents who study in Bratislava when compared to those studying in other Czech and Slovak university towns under consideration.

Table 1: **Correlates of the level of knowledge about Islam (K_K): maximum likelihood GLM estimates**

	N (respective subpopulation)	B	Std. Error
Intercept	-	6.723***	.114
Have or had Muslim friend	68	.849***	.132
Some contact with Muslims	161	.519***	.094
No contact with Muslims (dummy)	457		
Have visited Islamic country	152	.564***	.095
Roman Catholic	220	-.118	.094
Other minor religions	80	.559***	.126
Atheist (dummy)	386		
Gender – male	324	.476***	.082
Technical specialization	187	-1.335***	.106
Natural sciences and Medicine	133	-.672***	.116
Humanities	175	-.003	.107
Economics and Law (dummy)	191		
Study in Bratislava	136	1.122***	.116
Study in Banská Bystrica or Košice	138	-.049	.119
Study in Prague	220	.054	.101
Study in Brno, Ostrava, or Plzeň (dummy)	192		

*p<.1, **p<.05, ***p<.01

5.2. *Correlates of perceived threats and stereotypes*

Let's turn to the correlates of perceived threats and stereotypes. Based on our theoretical assumptions and the inspection of bivariate relationships, we estimate four multivariate binary logistic regression models. The measures of perceived threats and negative stereotypes as described above are considered as dependent variables and the characteristics of respondents are included as independent predictors. The set of predictors consists of the aggregate measure of objective knowledge (included in standardized form), and categorical variables of intergroup contact, religious affiliation, study specialization, nationality, and gender. The estimates of beta coefficients appear in Table 2. In the case of K_K , intuitively interpretable exponential beta coefficients are also shown. For example, the exp. (B) in the case of model (1) implies that, if other

variables controlled, a one-unit change in K_K would theoretically increase the ratio between those who would regard the integration of a religious Muslim as unproblematic and the rest of the respondents by 13%.

Table 2: Correlates of selected subjective views and perceived threats: binary logistic regression models

Dichotomous dependent variables referring to those respondents who:		(1) Regard integration of a religious Muslim into our society as problematic	(2) Regard Islam as more militant than Christianity	(3) Regard a typical Muslim as more fanatic than a typical Czech/Slovak	(4) Report no fears of Islamic terrorism
N (sample)		687	688	677	692
Constant (B)		.238	1.242***	1.617***	-1.302***
K_K	B	-.127***	.032	-.018	.095***
	Exp(B)	1.135	1.033	0.982	1.099
<i>Other characteristics of respondents (B)</i>					
Have or had Muslim friend		-.273	-.985***	-.884***	.560**
Some contact with Muslims		.036	-.473**	.140	.078
No contact with Muslims (dummy)					
Roman Catholic		-.153	1.001***	.180	-.419**
Other minor religions		-.093	.313	-.074	-.629**
Atheist (dummy)					
Technical, natural science or medicine specialization		.028	.152	.443**	.065
Nationality - Slovak		.177	-.467**	-.442**	.123
Gender – male		.077	-.150	-.454**	.202

*p<.1, **p<.05, ***p<.01

The results indicate significant impacts of active intergroup contacts on the examined measures, with the exception of the respondents' views on the integration of a Muslim into Czech or Slovak society. The direct effects of the level of knowledge are lower and significant only for the first and last model. Religious respondents are generally more afraid of Islamic terrorism than the rest of our sample (we reached the same conclusion when religiousness was considered instead of religious affiliation). While the affiliation to other minor religions seems to be important only with respect to fears of Islamic terrorism, those respondents affiliated to the Roman Catholic Church tend additionally to regard Islam as more militant than Christianity. The specialization of study has been found to be a significant predictor only with respect to views on

fanaticism. In addition, the Slovak respondents on average regard Islam as less militant and view a typical Muslim as less fanatical than those respondents with Czech nationality. Finally, gender has been uncovered as a significant predictor with respect to the perceived fanaticism of a typical Muslim. Furthermore, the insignificance of other factors except the level of knowledge in the case of the first model probably relates to the different nature of the respective dependent measure which assesses an intergroup anxiety rather than perceived threats.

In the present paper, we are particularly interested in the effects of factual knowledge about Islam on reported stereotypes and perceived threats. It is noted that the impacts of K_K on particular dependent variables can be either direct or they can be moderated by interactions with some other variable(s). The results in Table 2 suggest that consideration of the interaction effects may be particularly relevant when focusing on the correlates of reported fears of terrorism because significant main effects of K_K , intergroup contact, and religious affiliation have simultaneously been detected (i.e. differential effects of K_K across different groups of the two latter categorical variables may be assumed). For these purposes, we centred the measure of knowledge and, with consideration given to the results shown in Table 2, reclassified the intergroup contact and religious affiliation variables as dichotomous ones (respondents with a Muslim friend versus the rest and those affiliated to a church versus the rest). The models with and without the respective interaction terms are compared in Table 3.

Table 3: Test for the effects of two-way interactions (between K_K and intergroup contacts and between K_K and religious affiliation) on the reported fears of terrorism

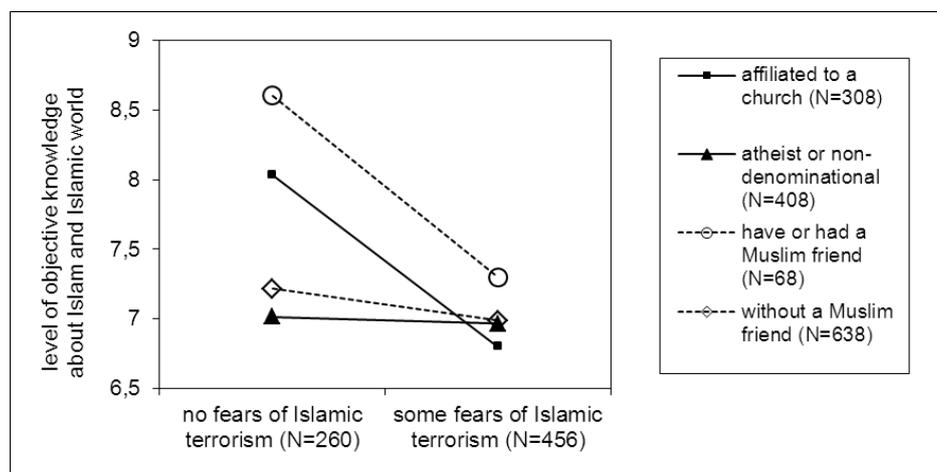
Model	Main effects only	With interaction terms
K_K	.090***	-.020
Have or had a Muslim friend	.539**	.375
Affiliated to a church	-.482***	-.532***
Technical, natural science or medicine specialization	.066	.060
Nationality – Slovak	.123	.159
Gender – male	.148	.129
K_K * Have or had a Muslim friend		.229*
K_K * Affiliated to a church		.191***

* $p < .1$, ** $p < .05$, *** $p < .01$

First of all, these results indicate that the effect of the level of knowledge on reported fears of terrorism is conditional on the affiliation of interviewed students to a church. The existence of active intergroup contacts in terms of having a Muslim friend also seems to moderate the effects of K_K on reported

fears of terrorism, though this finding has been confirmed at a lower significance level. The nature of these interactions is illustratively depicted in Figure 3 which shows that the decrease in observed knowledge about Islam in relation to increasing fears of Islamic terrorism is considerably more significant for the subgroups of respondents affiliated to a church and those with Muslim friend(s).

Figure 3: Interaction plot for the effects of the level of knowledge about Islam on fears of Islamic terrorism conditional to affiliation to a church and to personal contacts with Muslims



5.3. Correlates of anti-Muslim prejudice

In the final step, we focus on the correlates of prejudice against Muslims measured by the ordinal variable of reported social distance (ranks assigned according to the acceptability of an Arab Muslim as a neighbour). With consideration given to the requirements of the techniques used, we estimated four ordinal regression models with parameters described in Table 4. The first model examines the effects of the level of knowledge about Islam, intergroup contacts, affiliation to a church, nationality, gender, and study specialization. The second model merely analyzes the effects of the three measures of perceived threats and stereotypes. The third and fourth models then focus on the same measures of threats and stereotypes when additionally controlling for the effects of gender and nationality (third model) and of intergroup contacts and affiliation to a church (fourth model).

As expected in Hypothesis 2, the results confirm significant effects of the measures of perceived threats and stereotypes on prejudice towards Muslims. These relationships remain significant even after controlling for the effects of

other included variables. Among the characteristics of respondents, the variables of intergroup contact, affiliation to a church, and nationality have been found statistically associated with the level of prejudice. By contrast, the effects of other variables such as the level of knowledge, study specialization, and gender are statistically insignificant.

Table 4: Correlates of the prejudice against Muslims: estimated parameters of ordinal regression models

	Model 1	Model 2	Model 3	Model 4
K_K	.006			
Have at least some contacts with Muslims	-.536***			-.226
Affiliated to a church	.294*			.520***
Nationality – Slovak	.537***		.692***	
Gender – male	-.188		-.181	
Technical, natural science or medicine specialization	.029			
Regard integration of religious Muslim as problematic		.768***	.775***	.819***
Regard Islam as more militant than Christianity		.968***	1.007***	.889***
Report no fears of Islamic terrorism		-.410***	-.388***	-.355*
<i>Cox and Snell pseudo R²</i>	.058	.102	.135	.124

*p<.1, **p<.05, ***p<.01

Note: Dependent ordinal variable of social distance in terms of acceptability of an Arab Muslim neighbour has four categories with the first corresponding to the most acceptable and the fourth one to the least acceptable neighbour.

6. Concluding discussion

In this paper, we have attempted to contribute to the debate on the determinants of intercultural attitudes through an analysis of factors that underlie the subjective views and anti-Muslim prejudice of Czech and Slovak university students. The main goal has been to study the effects of factual knowledge about Islam in comparison to other respondent characteristics such as existing contacts with Muslims, religious affiliation, and study specialization (among other variables). This topic is interesting from a theoretical perspective as we have examined the assumptions derived from the intergroup contact theory and integrated threat theory. At the same time, focus on the role of knowledge is valuable in a practical sense. On the one hand, our own results suggest that the mediating effects of knowledge about Islam on stereotypes and prejudice towards Islam and Muslims are weaker in comparison to the effects of some other factors (such as, for example, religiosity). On the other hand, it is argued that statistical and practical significance are not identical. The practical

significance of the effects of knowledge stems from the fact that knowledgeable and access to knowledge can (and should) be actively stimulated.

Before continuing with a summary of main findings, a note on the limitations of this study is necessary. First, as already pointed out, the findings provided here are based on a survey conducted among university students and the results cannot be straightforwardly generalized to the overall population. Second, given the cross-sectional design of our data, causality cannot be reliably assessed and the observed statistical relationships should be carefully interpreted. Notably, cause and effect cannot be clearly distinguished in the relationship between knowledge about Islam and subjective attitudes towards Islam. The knowledge may have an impact on subjective attitudes (as expected here) but respondents with more negative attitudes may be less open to objective knowledge so that subjective attitudes may also influence the level of knowledge. This endogeneity problem is difficult to solve in the present context.

Another word of caution should be expressed in relation to research concerning sensitive topics such as those investigated here. Whether we like it or not, the increasing cultural diversity of our societies is an empirical fact and, as such, it should also be a matter of rigorous empirical examination. However, it is often difficult if not impossible to eliminate (unintentional) pre-understanding when dealing with such sensitive issues. Although applying appropriate statistical techniques, such pre-understanding may still influence the selection of questions for the survey instrument and the interpretation of results⁷. Bearing in mind these caveats, we still anticipate that at least some of our findings are interesting and informative.

The idea expressed in Hypothesis 1 – that contacts with Muslims facilitate knowledge about Islam and determine more positive subjective views on Islam and Muslims – have been partially confirmed by our results. The contact measures (both personal contacts with Muslims and experience with travel to an Islamic country) have been found to be positively associated both with higher factual knowledge and lesser perceived threats and stereotypes. However, the effects of knowledge on subjective views are not as uniform. On the one hand, significant (negative) relationships hold for views on difficulties regarding the integration of a religious Muslim into our society and for fears of Islamic terrorism. On the other hand, the level of knowledge has been found insignificant regarding views on the militancy of Islam and fanaticism of Muslims as well as with respect to the measure of anti-Muslim prejudice. In other words, the mediating impact of factual knowledge about Islam seems to

⁷ Interestingly, we thoroughly realized this issue when reading comments from reviewers on earlier versions of this paper. Some of these comments were contradictory due to different perspectives on the topic.

be dependent on the dimension of subjective attitudes under question. In addition, the inspection of statistical interactions has shown that the effects of knowledge on the fears of terrorism are moderated by the religiosity of respondents and active contacts with Muslims. This indicates the possibility of several different mechanisms operating behind the impacts of knowledge.

The abovementioned findings are obviously related to the inferences that can be made with respect to Hypothesis 2. In fact, Hypothesis 2 extends the first one in that it assumes indirect impacts of the level of knowledge on anti-Muslim prejudice through perceived threats. This extension (i.e. relationship between the threats and prejudice) was examined in the final step of our analysis. As expected, the analysis has confirmed generally strong statistical links between perceived threats and anti-Muslim prejudice (measured by the social distance variable in terms of the relative acceptability of having an Arab Muslim as a neighbour).

Although the inferences that can be drawn from our results are not consistent across all of the measures considered, the general applicability of expectations about the mediating effects of the contact-knowledge mechanism on anti-Islam attitudes have been corroborated. In more practical terms, our study has provided more evidence for the relevance of various interventions focusing on both the facilitation of inter-cultural contacts and improvements of factual knowledge about the out-group. Moreover, one possible interpretation of the above mentioned statistical interactions between knowledge and religious affiliation can be the expectation of arguably more effective impacts of educational and awareness programmes targeted specifically at religious social groups (though, at the same time, they may be less open to such interventions).

In addition, there are some other interesting findings about the impacts of other respondent characteristics. Field of study has been found as an important predictor of the level of knowledge about Islam (in terms of better knowledge reported by students of social sciences and humanities) but, more surprisingly, less important with respect to perceived threats and prejudices against Muslims. No straightforwardly interpretable findings have been obtained for religious affiliation. That a better knowledge about Islam was revealed among adherents of minor churches (other than Roman Catholics) may be explained by heightened competitive pressures that stimulate their awareness about other “out-group” religions. The situation is nevertheless different as far as perceived threats and anti-Muslim prejudices are concerned. In these cases, a significant relationship with a mere affiliation to a church has been confirmed. This corresponds to a substantial body of evidence on the impacts of religion on the attitudes toward out-groups. Some effects of nationality have also been documented in terms of the higher knowledge of Slovak respondents (but only

those from Bratislava) and more negative stereotypes but less anti-Muslim prejudice among Czech respondents. While we cannot clearly explain the latter difference between the Czech and Slovak students at hand, it is in correspondence with the results obtained by Strabac and Listhaug (2008) in their analysis of cross-country variation in relation to anti-Muslim prejudice in Europe.

The relationship between objective knowledge and subjective attitudes is a complex one. This is especially true regarding knowledge about Islam and attitudes towards Islam and Muslims discussed in this paper. In addition to the underlying variables considered in our analysis, many other factors may cause deviations from the expected behaviour. One should bear in mind the ambiguous role of various “externalities” such as unexpected world events (for example, try to consider the possible effects of the recent case of the Breivik killings in Norway, besides the more “usual” terrorist attacks of Islamist radical groups).

Josef Novotný is assistant professor in the Department of Social Geography and Regional Development, Faculty of Science, Charles University in Prague.

Filip Polonský is postgraduate student in the Department of Social Geography and Regional Development, Faculty of Science, Charles University in Prague.

REFERENCES

- ALLPORT, G. W., 1954: The nature of prejudice. Cambridge, MA: Perseus Books.
- BROWN, R. – HEWSTONE, M., 2005: An integrative theory of intergroup contact. *Advances in Experimental Social Psychology* 37: pp. 255-343.
- CARTER, J. S. – STEELMAN, L. C. – MULKEY, L. – BORCH, C., 2005: When the rubber meets the road: effects of urban and regional residence on principle and implementation measures of racial tolerance. *Social Science Research* 34 (2): pp. 408-425.
- CHANDLER, C. R. – TSAI, Y. M., 2001: Social factors influencing immigration attitudes: an analysis of data from the General Social Survey. *Social Science Journal* 38 (2): pp. 177-188.
- COENDERS, M. – SCHEEPERS, P., 2008: Changes in resistance to the social integration of foreigners in Germany 1980-2000: individual and contextual determinants. *Journal of Ethnic and Migration Studies* 34 (1): pp. 1-26.
- EVANS, G. – NEED, A., 2002: Explaining ethnic polarization over attitudes towards minority rights in Eastern Europe: a multilevel analysis. *Social Science Research* 31 (4): 653-668.
- GONZÁLEZ, K. V. – VERKUYTEN, M. – WEESIE, J. – POPPE, E., 2008: Prejudice toward Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology* 47: pp. 667-685.

- HAVLÍČEK, T. – HUPKOVÁ, M., 2008: Religious landscape in Czechia: new structures and trends. *Geografie* 113 (3): pp. 302-319.
- HELLO, E. – SCHEEPERS, P. – GIJSBERTS, M., 2002: Education and ethnic prejudice in Europe: explanations for cross-national variances in the educational effect on ethnic prejudice. *Scandinavian Journal of Educational Research* 46 (1): pp. 5-24.
- McLAREN, L. M., 2003: Anti-immigrant prejudice in Europe: Contact, threat perception, and preferences for the exclusion of migrants. *Social Forces* 81: pp. 908-936.
- PETTIGREW, T. F. – TROPP, L. R., 2008: How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology* 38: pp. 922-934.
- PETTIGREW, T. F. – TROPP, L. R., 2006: A Meta-Analytic Test of Intergroup Contact Theory. *Journal of Personality and Social Psychology*, 90, pp. 751-783.
- PETTIGREW, T. F., 1998: Intergroup contact theory. *Annual Review of Psychology*, 49, pp. 65-85.
- PODOLINSKÁ, T., 2010: The religious landscape in post-communist Slovakia. *Anthropological Journal of European Cultures*, 19 (1): pp. 85-101.
- ROTHBART, M. – JOHN, O. P., 1985: Social categorization and behavioral episodes: A cognitive analysis of the effects of intergroup contact. *Journal of Social Issues*, 41: pp. 81-104.
- SCHEEPERS, P. – GIJSBERTS, M. – HELLO, E., 2002: Religiosity and prejudice against ethnic minorities in Europe: cross-national tests on a controversial relationship. *Review of Religious Research*, 43 (3): pp. 242-265.
- SEMYONOV, M. – RAIJMAN, R. – YOM TOV, A. – SCHMIDT, P., 2004: Population size, perceived threat, and exclusion: a multiple-indicators analysis of attitudes toward foreigners in Germany. *Social Science Research*, 33 (4): pp. 681-701.
- STEPHAN, W. – STEPHAN, C., 1985: Intergroup anxiety. *Journal of Social Issues*, 41: pp. 157-175.
- STEPHAN, W. G. – STEPHAN, C. W. – GUDYKUNST, W., 1999: Anxiety in intergroup relations: A comparison of anxiety/uncertainty management theory and integrated threat theory. *International Journal of Intercultural Relations*, 23: pp. 613-628.
- STRABAC, Z. – LISTHAUG, O., 2008: Anti-Muslim prejudice in Europe: A multi-level analysis of survey data from 30 countries. *Social Science Research*, 37 (1): pp. 268-286.

APPENDIX 1 – Sample of respondents by universities

University	N	Male	Female	Faculties involved
UK Praha	113	47	66	Lékařská, Přírodovědecká, Právnická, Sociálních věd, Filosofická, Pedagogická, Matematicko-fyzikální
ČVUT Praha	22	21	1	Strojní, Elektrotechnická, Stavební
ČZU Praha	44	34	10	Ekonomická, Provozně-technická, Agrobiologie
VŠE Praha	32	22	10	Národohospodářská, Financí a účetnictví, Informatiky a statistiky
VŠCHT Praha	18	10	8	Chemické technologie, Potravinářské a biochemické technologie
MU Brno	66	22	44	Lékařská, Sociálních studií, Ekonomicko-správní, Právnická, Přírodovědecká, Filosofická
VUT Brno	46	29	17	Chemická, Elektrotechniky a komunikačních studií, Podnikatelská, Strojního inženýrství
OU Ostrava	23	11	12	Přírodovědecká, Filosofická, Pedagogická
VŠB-TU Ostrava	41	21	20	Ekonomická, Strojní, Elektrotechniky a informatiky, Hornicko-geologická
ZČU Plzeň	25	17	8	Elektrotechnická, Právnická, Ekonomická, Pedagogická, Filosofická
UK Bratislava	76	34	42	Právnická, Přírodovědecká, Filosofická, Lékařská
STU Bratislava	40	28	12	Elektrotechniky a informatiky, Chemickej a potravinárskej technológie, Strojnícka
EU Bratislava	27	16	11	Národohospodářská, Hospodárskej informatiky, Podnikového manažmentu
TUKE Košice	27	15	12	Baníctva, ekológie, riadenia a geotechnológií, Hutnícka, Strojnícka, Letecká
UPJŠ Košice	56	26	29	Lékařská, Přírodovědecká
UMB Banská Bystrica	60	26	34	Ekonomická, Humanitných ved, Přírodovědecká

APPENDIX 2 – Survey instrument

A – GENERAL KNOWLEDGE OF ISLAMIC RELIGION

A1. Who was the founder of Islam?

Abraham – Buddha – Jesus – Moses – Muhammad – Zoroaster

A2. What is the name of the holy book of Islam?

Bible – Kama Sutra – Koran – Talmud

From the above mentioned books underline those from which you have read at least one passage.

A3. What is “jihad”?

Personal struggle to defend and spread the faith – blood feud – holy war – don’t know this term

A4. What relation does Jesus Christ have to Islam?

no relation to Islam – he was/is a prophet of Islam – he was/is an enemy of Islam

A5. Can you name the 5 pillars of Islam, i. e. duties which every Muslim has to follow?

A6. Can you list the foods and drinks forbidden by Islam?

A7. Which are the 2 main religious factions of Islam?

Brahmans and Vishnu – Catholics and Protestants – Orthodox and Reformed - Sunnites and Shiites

Then underline the faction which has more adherents.

A8. Circle the religious symbol of Islam:



B – SUBJECTIVE OPINIONS ON ISLAM AND MUSLIMS

B1. What does Islam mean to you? (Which term suits the “real” Islam the best?)

(From the following, rank 3 alternatives closest to your opinion)

Politics – Religion – Social system – System of law – Terrorism – Way of life

B2. Can a faithful (and practicing) Muslim live in our (Western-like) society without serious problems?

Rather yes (*specify briefly why*)

Rather no (*specify briefly why*)

B3. Do you think that democracy of a Western type can function in Muslim countries?

Rather yes (*specify briefly why*)

Rather no (*specify briefly why*)

B4. Try to compare your views of Christianity and Islam nowadays. Which of these 2 religions is according to your opinion:

	Christianity	Islam	equally
more militant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
more tolerant towards other religions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
more socially sensitive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
more dogmatic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
has a greater potential for expansion by pop. growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
has a greater potential for territorial expansion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B5. Try to describe your subjective image of a Muslim in comparison to a typical Slovak/ Czech with regard to the following characteristics.

	more	equally	less
hospitable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
impulsive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
greedy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fanatical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
honest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
cunning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
devout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
immoral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
arrogant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
tolerant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
respectful to women	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B6. To what extent are you worried about the growth of Islamic extremism?

	In the Czech Republic/Slovakia	In Europe	In the world
very worried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
to some extent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
not too much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B7. Would you agree with building a mosque in the Czech Republic/Slovakia (for example in the place where you live)?

- Yes, I would agree
- Yes, I would agree, but only under certain conditions or circumstances (specify)
- No, I wouldn't agree at all

B8. Order the below mentioned social groups from the most acceptable (rank 1) to the least acceptable (rank 5) neighbour.

Arab Muslim – Romany – Ukrainian – Vietnamese – German

C – GEOGRAPHICAL KNOWLEDGE OF ISLAMIC WORLD

C1. What is the approximate share of Muslims in the world's population?

15-25%; 25-35%; 35-45%; 45-55%

C2. List 4 countries with the highest absolute number of Muslims in the population:

C3. Try to estimate the number of Muslims living permanently in the Czech Republic/Slovakia.

C4. On the enclosed political map of the world, mark the states which you consider to be Islamic (i.e. in which Islam has a dominant position).

C5. On the same map, draw the lines of the Arabic world.

D – SOCIO-DEMOGRAPHIC CHARACTERISTICS

D1. Religious affiliation

Roman-Catholic; Protestant (incl. factions of Protestantism); Undenominational; Other (specify)

D2. How many times have you attended a religious ceremony within the past three months?

9 and more; 1–8; 0

D3. Personal contacts with Muslims

- Yes, I have (or have had) a Muslim friend.
- Yes, sometimes I am in contact with somebody I know to be a Muslim.
- No, I don't know any Muslims personally.

D4. Experience with visit to an Islamic country

- Yes, I have travelled in an Islamic country (specify)
- Yes, I have been to an Islamic country on a holiday by the sea
- No, I have never visited any Islamic countries

D5. Gender: Male/Female

D6. What is your age?

D7. What are your nationality AND citizenship? Czech – Slovak – Other (specify)

D8. From what city (town) or village are you from?

D9. What is the net monthly income of your household?

Less than 15 000 CZK/SKK; 15 001 – 25 000 CZK/SKK; 25 001 – 35 000 CZK/SKK; 35 001 and more CZK/SKK