

ORIGINAL ARTICLE

Personality correlates of social attitudes and social distance

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BACKGROUND

Previous studies have shown that personality traits (i.e., openness to experience, conscientiousness, and agreeableness) relate to prejudicial attitudes. However, one of the aspects of prejudice is social distance; its association with personality traits was overlooked by previous studies. Therefore, this study examines the connection between the Big Five personality traits and social distance toward certain social groups.

PARTICIPANTS AND PROCEDURE

Participants from the general population were recruited through leaflets, the institutional webpage, Facebook, and through the project recruitment website and assessed via paper-and-pencil or online form. A total of 214 participants were included (of whom 68.2% were women and the mean age was 32.65, $SD = 11.27$, range 18-72) who completed the Bogardus Social Distance Scale and the 44-item Big Five Inventory questionnaire.

RESULTS

The results showed a relationship between social distance, agreeableness, and openness to experience. Agreeableness seems to lower the social distance toward all studied groups. In comparison, openness to experience seems to lower the social distance towards groups that evoke more polarized attitudes in the majority (e.g., migrants). Furthermore, the influence of demographic characteristics (i.e., age, education level, and gender) is also significant.

CONCLUSIONS

This study shows that personality is significantly related to social distancing and expression of prejudicial attitudes. In particular, agreeableness and openness to experience have different effects on social distance and attitudes toward different groups. Further implications are discussed.

KEY WORDS

Bogardus Social Distance Scale; BFI-44; social distance; personality

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BACKGROUND

We live in a world interconnected like never before. Due to the possibility of communication with people on the other side of the world, we meet people daily from different cultures and with diverse life experiences. Therefore, it is important to study social distance between groups, which would give a good picture of intersocial attitudes at any given time. Moreover, conducting research across sufficient time intervals enables one to take into account changes in intergroup attitudes.

Prejudice is interpersonal hostility directed against individuals based on their membership in another group or, as Gordon Allport puts it, “[Ethnic] prejudice is an antipathy based upon a faulty and inflexible generalization. It may be felt or expressed. It may be directed toward a group as a whole, or toward an individual because he is a member of that group” (Allport, 1954, p. 9). In the contemporary model, prejudice can be blatant or subtle (Pettigrew & Meertens, 1995). This distinction is also reflected in language use (Collins & Clément, 2012). Stereotypes are attitudes rooted in the human tendency to categorize objects, in this case people, and their features, and are not pathological *per se* (Brubaker et al., 2004). Like any other attitude, they have affective, behavioral, and cognitive components (Eagly & Chaiken, 1998). Therefore, if we want to study attitudes via questionnaires, we can ask about how participants feel about outgroup members (affective), what they think about them (cognition), or how they behave towards outgroups and their members (behavior).

An aspect and a form of expression of prejudice is social distance, which is considered to be a multi-dimensional construct that influences all social relations (Karakayali, 2009). Robert Park (1924) defined social distance as a degree of understanding and intimacy that characterize personal and social relationships. In this perspective, the greater the social distance, the less the two societies influence each other and the less open they are to mutual contact, particularly in the sense of intimacy and relationships (see also Williams, 2015).

Emory Bogardus introduced the concept of social distance for measuring social attitudes between groups. The Bogardus Social Distance Scale (BSDS) includes a set of situational questions about what a participant would find as a comfortable relationship with an outgroup member. The preference for greater social distance from a certain social group is deemed to be an aspect of negative attitudes and could show underlying social trends within a society. His scale is considered to be one of the most influential tools for measuring social distance and blatant prejudice, i.e., a direct form of prejudice associated with the rejection of an outgroup (Parrillo & Donoghue, 2013; Pettigrew & Meertens, 1995). Emory Bo-

gardus himself repeatedly investigated attitudes in American society on a nationwide scale (Bogardus, 1925, 1933, 1947, 1958, 1968; see also Parrillo & Donoghue, 2005, 2013). The scale has been used in various cultural environments and language modifications (for a review, see Wark & Galliher, 2007). Its modified versions were used for measuring the social distance between not only nationalities, but also other social groups, such as those with differing political preferences (Iyengar et al., 2012), those experiencing substance abuse (Ashford et al., 2018), homelessness (Phillips, 2015), or immigration (Ayers et al., 2009; Kopic & Phalet, 2006).

Thus, the concept of social distance stresses not only the normative, cultural, and interactive aspects of prejudice, but also cognitive, behavioral, and affective aspects as experienced by a subject (Karakayali, 2009); however, it does not necessarily take into account real physical proximity, actual contact, and previous experiences with an outgroup. But these are among the essential factors influencing and modifying prejudice and its expression. Studies showed that blatant prejudice is influenced by, e.g., experience with mutual contacts (Sparkman et al., 2016), socio-cultural or socioeconomic context (Gallego & Pardo-Prado, 2014), values and personal identifications with a group (Ceobanu & Escandell, 2010), and some demographic characteristics as well. Age differences in attitudes are well documented in the literature; especially it was found that older adults are more prone to blatant expression of their attitudes and prefer greater social distance than young people (e.g., Ford, 2008; Jorm & Oh, 2009; Radvansky et al., 2010; von Hippel, 2007). Studies explain this by generational shift, changes associated with life cycle, stronger authoritarian values, or declining inhibitory functions. Furthermore, gender differences in prejudice expression were previously found. Women, for example, displayed higher implicit prejudice than men, while men scored higher on explicit prejudice than women (Ekehammer et al., 2003). Also men showed higher biases towards other men and racial out-groups than women (Jonason et al., 2020).

The level of education appears to play a vital role in modification of attitudes as well. For example, a study of Verberk et al. (2002) found that people with lower education levels tend to express their prejudice more blatantly. The authors explained this by social competition with disadvantaged groups.

Traditionally, one of the most studied factors associated with prejudice has been personality. Most famously, the concept of an authoritarian personality was introduced (Adorno et al., 1950), in which Altemeyer (1981) conceived the right-wing authoritarianism (RWA) personality dimension. Later, the social dominance orientation (SDO) dimension was defined (see Sidanius & Pratto, 2001). In their meta-analysis, Sibley and Duckitt (2008) analyzed available studies

to date, which compared RWA, SDO, and prejudice scores with the Big Five personality traits. According to this study, RWA is associated with low openness to experience and high conscientiousness (both weakly), while SDO is associated with low agreeableness (moderately) and low openness to experience (weakly). Additionally, other studies concluded that openness to experience and agreeableness are good predictors of prejudice (Flynn, 2005; Jackson & Poulsen, 2005; Pavlović & Purić, 2016). Other personality traits did not show a significant effect.

However, RWA and SDO personality dimensions do not refer to overall personality structure (i.e., they do not show sufficient correlation with other personality measures and are often situationally variable; see Sibley & Duckitt, 2008). Hence, it is difficult to relate them to the general theory of personality, e.g., measured by the Big Five Inventory (BFI; John & Srivastava, 1999), and its applicability.

To date, studies examining association of social distance with Big Five personality traits are lacking. A better understanding of the relationship of personality with social distance would give us a more comprehensive view on attitude dynamics, and it would also be a precious tool in prejudice prevention planning and social relations policies. There is a long way to go. Therefore, the first step would be to find out whether social distance is related to personality traits.

CURRENT STUDY

Previous studies have shown that personality might play an important role in the development of social attitudes (for a review, see Sibley & Duckitt, 2008). To our knowledge, there are no studies that relate social distance with personality traits, and hence our research seeks to answer whether personality traits are connected with social relations and social distancing between groups. In the present study, we examined the association between personality traits and social distance of the majority to the most-discussed social groups in the Czech Republic. We applied a modified Czech version of the BSDS and the BFI to determine the extent to which social distance can be related to certain personality types.

Following the mentioned findings, we hypothesized that overall social distance will vary with different levels of the Big Five personality traits: openness to experience, agreeableness, and conscientiousness, with neuroticism and extraversion having no relation. As mentioned, social distance to social groups might differ due to various other factors, e.g., demographics; therefore, we sought to account for their influence as well. This study is part of a larger project, which aims to examine the relationship between various personality characteristics and the daily perception of otherness.

PARTICIPANTS AND PROCEDURE

PARTICIPANTS

Participants from the general population were recruited through leaflets (at universities, libraries, and bus stations), the institutional webpage, Facebook, and through the project recruitment website. The initial sample had 306 participants assessed via paper-and-pencil or online form. The inclusion criteria for all subjects were: 1) age \geq 18 years and 2) Czech citizenship. The exclusion criteria were: 1) a score $>$ 20 in the Beck Depression Inventory (BDI) and/or 2) a score $>$ 18 in the Beck Anxiety Inventory (BAI). Seventy-two participants from those completing questionnaires in the online format were excluded because of high BDI and/or BAI scores; moreover, 5 participants were excluded because of unreliable data (e.g., age 9004). From the paper-and-pencil format, 15 participants were excluded because of high BDI and/or BAI scores.

Thus, after applying the exclusion criteria, the final sample consisted of 214 participants, of whom 68 (31.8%) were men and 146 (68.2%) were women (no respondent chose the option "other"). They were all Czech citizens, selected by location (large cities, small towns, rural areas), and the mean age of the participants was 32.65 ($SD = 11.27$, range 18-72). Ninety of them had secondary education, 124 of them had tertiary education. From the final sample, 80 (37.4%) were assessed with a paper-and-pencil form, and 134 (62.6%) completed the online questionnaire form (for differences between the two groups, see Table 1).

This study was conducted according to the guidelines of the 1964 Declaration of Helsinki and its later amendments. Ethical approval for this study was obtained from the local ethics committee. All participants were informed about the goals and procedures of the study, and all participants signed or approved written informed consent before participating in the study.

MEASURES

Demographic information. Participants were asked to state their age, gender (women, men, other), education, and the municipality size where they live.

Bogardus Social Distance Scale (BSDS). In the original design of the BSDS (Bogardus, 1933), the participant chooses their first acceptable possibility of social distance for each social group, with a range of seven options for each group, which gradually proceed from the closest to the most distant ones. Participants are asked to choose rapidly without thinking. For instance: "Would you accept (here is the name of an outgroup member) as: 1) a spouse; 2) a regular friend; 3) a close coworker; 4) a neighbor; 5) a speaking ac-

Table 1*Differences between participants completing the paper-and-pencil form and online form of the questionnaires*

	Paper-and-pencil form (<i>n</i> = 80)	Online form (<i>n</i> = 134)	Difference test
Age (<i>M</i> ± <i>SD</i>)	33.30 ± 11.99	32.25 ± 10.85	<i>U</i> = 5273, <i>p</i> = .843
Gender (% women)	63.75	70.90	$\chi^2(1) = 1.18, p = .227$
Education level (%)			$\chi^2(1) = 0.92, p = .337$
Primary	0.0	0.0	
Secondary	46.25	39.60	
Tertiary	53.75	60.40	
BDI (<i>M</i> ± <i>SD</i>)	4.85 ± 4.34	7.19 ± 5.29	<i>U</i> = 3956, <i>p</i> < .001, <i>r</i> _{rb} = .26
BAI (<i>M</i> ± <i>SD</i>)	6.50 ± 5.05	7.68 ± 5.11	<i>U</i> = 4630, <i>p</i> = .095
Big Five Inventory (<i>M</i> ± <i>SD</i>)			
Openness to experience	2.94 ± 0.55	2.55 ± 0.64	<i>t</i> (212) = 4.62, <i>p</i> < .001, <i>d</i> = -.65
Conscientiousness	2.56 ± 0.63	2.36 ± 0.67	<i>t</i> (212) = 2.13, <i>p</i> = .035, <i>d</i> = .30
Extraversion	2.51 ± 0.69	1.89 ± 0.90	<i>t</i> (212) = 5.32, <i>p</i> < .001, <i>d</i> = .75
Agreeableness	2.83 ± 0.49	2.46 ± 0.64	<i>t</i> (212) = 4.45, <i>p</i> < .001, <i>d</i> = .63
Neuroticism	1.56 ± 0.89	1.88 ± 0.88	<i>t</i> (212) = -2.57, <i>p</i> = .011, <i>d</i> = -.36
BSDS (<i>M</i> ± <i>SD</i>)	20.04 ± 21.31	38.61 ± 24.39	<i>t</i> ^{sqrt} (212) = -6.62, <i>p</i> < .001, <i>d</i> = -.94

Note. BDI – Beck Depression Inventory; BAI – Beck Anxiety Inventory; BSDS – Bogardus Scale of Social Distance; *U* – Mann-Whitney *U* test; *r*_{rb} – rank biserial correlation; χ^2 – Pearson’s chi-squared test; *t* – Student’s *t*-test; *d* – Cohen’s *d*; sqrt – square root transformation applied.

quaintance; 6) a person living outside my neighborhood; 7) a person living outside of my country”.

This design enables one to make quick judgments about many outgroup members in one battery. It utilizes the Guttman scale, where the selected possibility implies answers to all others. Therefore, it assumes that all the “less distant” options are *sine qua non* prerequisites for a “more distant” option (i.e., if someone chooses that they would marry a member of the outgroup, then it is assumed that they would also accept this person as a neighbor). Although this line of thought seems plausible, it does not need to be in concordance with the participant’s mental models. To overcome this and provide a more fine-grained methodology to measure social distance for our purposes, we used and modified the design of Weinfurt and Moghaddam (2001), where participants evaluated the strength of each option on a 9-point Likert scale. In our study, to each “would you accept...” option (e.g., “...an outgroup member as your neighbor”), the respondent answered on a 4-point scale (*yes, probably yes, probably no, no*). The higher the score, the higher the social distance level. The total score then determines the measured social distance.

In addition, we used modified options of Weinfurt and Moghaddam (2001) to match more closely

with the Czech cultural environment. Therefore, the final options of accepting an outgroup member were: 1) as a spouse; 2) as a close friend; 3) as a neighbor; 4) as a close coworker; 5) as a country citizen; 6) as a visitor to my country; 7) would ban admission to my country.

Social distance toward these groups was measured: Romani (we respected the preferred designation by the Romani themselves and used the Czech equivalent of Romani – Romové; for a possible nomenclature effect, see Discussion), Vietnamese, foreigners, homeless people, migrants, people with mental disorders, people with a physical disability, and overall score. These social groups were selected because they represent the most stigmatized minorities. Also, there is a mixture of ethnic or national minorities (Vietnamese, Romani, and foreigners in general), groups of people with handicaps (people with a physical disability, people with a mental disorder), and socially disadvantaged (homeless people, migrants). The internal consistency measured by McDonald’s ω was excellent for the whole scale (.97), and for specific groups ranged from .87 to .96. The Czech version of the scale also showed good psychometric properties and convergent validity measured by correlations with instruments focused on blatant

and subtle attitudes, and racism (ρ s .45-.65; Heissler et al., 2022).

Big Five Inventory (BFI). In our study, we used the Czech version of the 44-item Big Five Inventory (BFI-44; Hřebíčková et al., 2016), showing good internal consistency (Cronbach's α ranges from .68 in agreeableness to .83 in neuroticism, median = .73; two-month retest stability $r = .79$). It consists of a list of 44 propositions, which begin with "I see myself as someone, who..." Each participant rates each proposition on a 5-point Likert scale (from *strongly agree* to *strongly disagree*). It measures five personality factors: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. A higher score means stronger presence of the measured trait. In our sample, the internal consistency of the BFI-44 ranged from satisfactory to very good for the openness to experience (McDonald's $\omega = .79$), conscientiousness ($\omega = .82$), extraversion ($\omega = .86$), agreeableness ($\omega = .75$), and neuroticism ($\omega = .89$) subscales; total internal consistency was .79.

The Beck Depression Inventory (BDI; Beck et al., 1996) is a standard tool for measuring depressive symptoms. The Czech version (Ptáček et al., 2016) showed good internal consistency ($\alpha = .93$).

The Beck Anxiety Inventory (BAI; Beck et al., 1988) is a standard tool for measuring anxiety symptoms. The internal consistency of the Czech version has been reported to be between $\alpha = .82$ and $\alpha = .94$, depending on the diagnosis (Kamarádová et al., 2016).

PROCEDURE

Data were collected in face-to-face meetings or online. Data collection in both forms took place simultaneously. All participants were informed about the procedure and informed consent was obtained from all participants. Subjects with depressive or anxiety symptoms were excluded to overcome bias caused by potential clinical symptomatology subsequently. The study focuses on attitudes of members of one group toward members of the other groups on an individual scale and not on complex intergroup relationships; subjects with depressive or anxiety symptoms might bias the results (Canli & Lesch, 2007; Plana et al., 2014). For instance, it has been found that people with anxiety generally show more negative attitudes (Bell & Dunbar, 2012).

DATA ANALYSIS

Statistical analyses included descriptive statistics, between-group comparisons, and correlations. Testing for normality of the score distribution was tested using Q-Q plots together with the Shapiro-Wilk test. If the data did not show normality, they were trans-

formed (using logarithmic transformation or square-root transformation), and normality was checked again. Only the overall BSDS score showed normality after square-root transformation. Outliers were examined using boxplots. They were not removed from the dataset because they had no significant effect on the results of the statistical analyses used. Spearman's ρ was used to assess relationships between continuous variables. Differences between groups were tested using the Mann-Whitney U test (effect size is given by the rank biserial correlation r_{rb}) or the t -test (effect size is given by Cohen's d). Moreover, multiple linear regression was used with BSDS scores as a dependent variables and demographic characteristics that were found related to BSDS in previous studies, i.e., age, gender, and education level, as independent variables in the first block, and BFI personality traits in the second block.

RESULTS

BFI and BSDS scores are shown in Supplementary materials (Table S1) for the whole sample ($N = 214$) and by gender (women: $n = 146$, men: $n = 68$, other: $n = 0$) and level of education (primary: $n = 0$, secondary: $n = 90$, tertiary: $n = 124$) together with difference tests.

We analyzed the associations between BFI personality traits and BSDS scores using Spearman's ρ . The results are shown in Table 2. Openness to experience correlated negatively with all BSDS scores. Agreeableness was negatively correlated with most of the BSDS scores (except the social distance toward Vietnamese and people with physical disability). Also, extraversion was negatively correlated with the BSDS scores for migrants, people with mental disorders, and overall score. However, all significant correlations were small (ρ ranging between .14 and .29). Neuroticism and conscientiousness showed no statistically significant correlation with BSDS.

Subsequently, we ran a series of multiple linear regressions to predict BSDS scores for all representants of otherness and BSDS overall score using demographics (gender, age, education level) and, based on the results of our correlation analysis and the results of previous studies, openness to experience, agreeableness, and extraversion as independent variables.

First, the regression analysis assumptions were tested. Although the Shapiro-Wilk test for the normality of the residuals distribution indicated $p < .05$ in most of the BSDS scores (note that normalizing transformations did not improve these results except for the overall BSDS score), all eight models fit the requirement of no multicollinearity (VIF range 1.04–1.17). Seven of the eight models also show no autocorrelation (DW ranging between 1.71 and 1.99, p ranging between .22 and .91). The BSDS score for

Table 2*Intercorrelations for Big Five personality traits, BSDS, and age*

BSDS	Big Five Inventory					Age
	Openness to experience	Conscientiousness	Extraversion	Agreeableness	Neuroticism	
Romani	-.27***	-.01	-.11	-.25***	.07	.11
Vietnamese	-.24***	.06	-.12	-.11	.06	.15*
Foreigners	-.21**	.04	-.13	-.15*	-.04	.15*
Homeless people	-.25***	-.09	-.12	-.29***	.05	.18**
Migrants	-.29***	-.01	-.16*	-.17*	.05	.16*
People with mental disorders	-.18**	-.01	-.14*	-.22***	-.08	.24***
People with a physical disability	-.26***	-.07	-.12	-.12	.07	.10
Overall score	-.29***	.00	-.14*	-.25***	.03	.18**

Note. BSDS – Bogardus Scale of Social Distance; * $p < .05$, ** $p < .01$, *** $p < .001$.

homeless people showed acceptable DW with a value of 1.66 but was significant ($p = .004$).

The results of the final models can be found in Supplementary materials (Table S2). The analysis indicates that 24.26% (or 22.07% when adjusting for the number of independent variables and sample size) of the variance in the BSDS overall score is explained by the independent variables. The variance explained for the BSDS scores for the selected social groups and minorities ranged between 9.79% (7.17% after adjusting) and 20.62% (18.32% after adjusting). In all models, the majority of explained variance came from the second block including personality traits when controlling for demographics in block 1 (all $p < .05$). The final models showed that the most frequent predictors of BSDS scores were age and education level from demographic characteristics, and agreeableness and openness to experience from personality traits. Furthermore, gender was a significant predictor in two of the eight models.

DISCUSSION

Studies assessing the association between personality traits and social distancing are still scarce. Therefore, this study aimed to determine to what extent social distance to various otherness categories is related to the Big Five personality traits.

Although demographic variables were not our main concern, as previous studies have shown, it is important to mention them so that we can control their potential influence on other variables. Our results show that higher education is related to lower social distance scores, as the regression analysis showed

that education level is one of the best predictors of the BSDS scores from the variables studied. Higher education is often considered one of the strongest determinants for overcoming prejudice (Gallego & Pardo-Prado, 2014), but its effect is culturally determined (Hello et al., 2002). Education also plays an important role in the expression of overt prejudice (Verberk et al., 2002). In the Czech cultural environment, we found some support for the effect of education reducing social distance. People with higher education also had a higher score in openness to experience.

Furthermore, our analysis showed that from demographic characteristics, age is among the best predictors of social distance preference. Older adults tend to claim greater social distance from all studied groups with the only exception being people with physical disability. Previously, higher prejudicial attitudes in older adults have been found (see e.g., Ford, 2008; von Hippel, 2007); one study also documented a greater preference for social distance in older age from people with mental disorders (Jorm & Oh, 2009). Thus, our study elaborates on their findings because we focused on a variety of diverse social groups and found a similar trend.

In our study, gender was a significant predictor of social distance to two groups – Vietnamese and migrants. Women claimed a greater social distance than men. This finding contrasts with the results of Parrillo and Donoghue (2013), in which women showed a lower overall social distance score than men. Ekehammar et al. (2003) found women to be higher on implicit racial prejudice than men, which is also in contrast to our results because BSDS is considered a measure of blatant prejudice (Pettigrew, 2009). A previous Czech study (Ryšavý, 2003) found no dif-

ferences between genders in social distance toward Romani; our results are in line with theirs. Jonason et al. (2020) failed to replicate the finding that men are more racially prejudiced than women. However, they found differences in their approach-avoidance tendencies to different others. In our view, the perception of the studied otherness category in a cultural context is an important factor to be considered. In the Czech Republic, Vietnamese and migrants are burdened by many stereotypes, and migrants are especially a subject of a negative portrayal in the media in such a way that might lead to self-protective bias in women.

Controlling for the influence of these demographic variables, we found that higher agreeableness was a significant predictor of lower social distance to all groups as well as overall social distance. Moreover, higher openness to experience was a significant predictor of overall social distance, and more specifically also to Romani, homeless people and migrants. Akrami et al. (2011) also found that agreeableness and openness to experience are the main personality predictors for attitude toward immigrants. Similarly, Gallego and Pardos-Prado (2014) argue that agreeableness predicts more liberal political views and ideology, which is associated with more positive attitudes towards immigrants.

Both higher agreeableness and openness to experience are good predictors of BSDS scores, which means that higher scores in these personality traits are associated with a positive attitude toward "otherness". This result is in concordance with the results of Flynn (2005), Jackson and Poulsen (2005), Pavlović and Purić (2016) and Sibley and Duckitt (2008), who identified these traits as key components in predicting prejudicial behavior. Thus, the BSDS has proven to be a suitable tool for measuring prejudicial behavior.

While agreeableness is associated with values such as benevolence, tradition, and conformity, and negatively with power and achievement, openness to experience correlates with universalism, self-direction, and stimulation values, but negatively with conformity, tradition, and security (Roccas et al., 2002). Open people tend to have more liberal views (Gallego & Pardos-Prado, 2014) and are more likely to befriend a person of immigrant origin (Jackson & Poulsen, 2005). These values might explain, at least to some extent, how these personality traits might affect attitudes. Furthermore, subjects with a higher openness to experience score were also more open to stereotype-disconfirming information (Flynn, 2005). These aspects might lead to a more open attitude and closer social distance, as is supported by the results of the present study.

Although openness to experience and agreeableness not only correlate with the social distance score but are significant predictors as well, the outcome for each of the studied groups differs. This probably means that, even though both traits have an overall

effect on social distance, other variables determine how it will modulate the attitude towards a particular group. As mentioned, attitudes toward different outgroups might be sensitive to experience with mutual contact (Sparkman et al., 2016), sociocultural or socioeconomic context (Gallego & Pardos-Prado, 2014), and values and personal identifications with a group (Ceobanu & Escandell, 2010). Thus, in our sample, agreeableness seems to reduce social distance levels toward all groups, and openness to experience seems to reduce social distance especially toward groups that evoke more polarized attitudes in the majority (in Czech society these are Romani and migrants, as well as homeless people; see Hoření, 2018; Lyons, 2016). These results show that in social attitudes there is a specific relationship with specific social factors and attributed features of certain social groups on one hand and personality structure of the subject on the other.

It is necessary to point out a nomenclature issue in the case of the Romani group. This designation is not accepted by all members of the majority, who might prefer the name "Cikáni" (Czech equivalent of "Gypsy"), which is considered pejorative by the majority of the Romani population. Specific nomenclature (and its connotations) might serve as a cue for more desirable answers, leading to adjustments in the answers. However, our results showed some effect of personality traits (particularly agreeableness and openness to experience) on social distance, even when the more neutral form "Romani" was used. Therefore, we might expect this effect, even when the term "Cikáni" would be used. However, this would need further investigation (which might be ethically problematic).

LIMITATIONS AND FUTURE DIRECTIONS

Our study has several limitations. First, the sample was relatively small. Additionally, the group that completed the questionnaires in an online form differed significantly from the paper-pencil format group. This may be due to different response styles and the effect of social desirability between the anonymous online format and face-to-face setting (Liu et al., 2017). But also the recruitment of participants could have been influenced by the mental health institution under which this study was conducted. People sympathetic to the goals and mission of the organization were probably more prone to face-to-face meetings, while the online format attracted a wider public. Second, due to brevity, we did not explore attitudes toward all minorities or stereotyped groups, but we considered the most discussed minorities or social groups in the Czech Republic, where we can expect different overall scores in social distance, and thus can capture the personality effect on social distance. Third, research of attitudes and prejudice as

such is burdened by limitations, for example, regarding the appropriate way to measure them; while some recommend using indirect questioning, some advise direct questioning (Axt, 2018; Jonáš, 2013). Thus, it is important to note that our study does not reveal the overall complex intergroup relations, but just one aspect of them, social distance; for more comprehensive knowledge, other variables should be included as well (e.g., other sociocultural and socioeconomic factors, history of mutual contact, values).

To understand the full picture regarding why attitudes towards certain groups evoke specific reactions, while attitudes towards other groups evoke different reactions, we suggest that further research should also include a semantic analysis regarding which groups named evoke specific reactions in subjects, in addition to addressing the aforementioned limitations.

CONCLUSIONS

This study found evidence for a relationship between social distance and the Big Five personality traits: agreeableness and openness to experience. Moreover, it found that other variables, e.g., demographics, have an important influence on attitudes and social distance to a particular group as well. Comparing the results of the personality inventory (BFI-44) with social distance toward a particular group (as measured by the BSDS) enabled us to come up with suggestions applicable to everyday life. Our results show that personality is significantly related to social distancing and expression of prejudicial attitudes. The results indicate that it is necessary to take into account such variables as personality traits in fields dealing with social contact in relation to one's general approach to others, as well as in one's approach to a particular society or population.

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Supplementary materials are available on journal's website.

DISCLOSURE

The authors declare no conflict of interest.

REFERENCES

Adorno, T., Frenkel-Brenswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. Harper & Brother.

- Akrami, N., Ekehammar, B., & Bergh, R. (2011). Generalized prejudice: Common and specific components. *Psychological Science*, 22, 57–59. <https://doi.org/10.1177/0956797610390384>
- Allport, G. W. (1954). *The nature of prejudice*. Addison-Wesley.
- Altemeyer, B. (1981). *Right-wing authoritarianism*. University of Manitoba Press.
- Ashford, R. D., Brown, A. M., & Curtis, B. (2018). Substance use, recovery, and linguistics: The impact of word choice on explicit and implicit bias. *Drug and Alcohol Dependence*, 189, 131–138. <https://doi.org/10.1016/j.drugalcdep.2018.05.005>
- Axt, J. R. (2018). The best way to measure explicit racial attitudes is to ask about them. *Social Psychological and Personality Science*, 9, 896–906. <https://doi.org/10.1177/1948550617728995>
- Ayers, J. W., Hofstetter, C. R., Schnakenberg, K., & Kolody, B. (2009). Is immigration a racial issue? Anglo attitudes on immigration policies in a border country. *Social Science Quarterly*, 90, 593–610. <https://doi.org/10.1111/j.1540-6237.2009.00633.x>
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56, 893. <https://doi.org/10.1037/0022-006X.56.6.893>
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for the Beck Depression Inventory-II*. Psychological Corporation.
- Bell, C. C., & Dunbar, E. (2012). Racism and pathological bias as a co-occurring problem in diagnosis and assessment. In T. A. Widiger (Ed.), *The Oxford handbook of personality disorders* (pp. 694–709). Oxford Academic. <https://doi.org/10.1093/oxford-hb/9780199735013.013.0032>
- Bogardus, E. S. (1925). Measuring social distance. *Journal of Applied Sociology*, 9, 299–308.
- Bogardus, E. S. (1933). A social distance scale. *Sociology & Social Research*, 17, 265–271.
- Bogardus, E. S. (1947). Measurement of personal-group relations. *Sociometry*, 10, 306–311. <https://doi.org/10.2307/2785570>
- Bogardus, E. S. (1958). Racial distance changes in the United States during the past 30 years. *Sociology and Social Research*, 43, 127–134.
- Bogardus, E. S. (1968). Comparing racial distance in Ethiopia, South-Africa, and United-States. *Sociology and Social Research*, 52, 149–156.
- Brubaker, R., Loveman, M., & Stamatov, P. (2004). Ethnicity as cognition. *Theory and Society*, 33, 31–64. <https://doi.org/10.1023/B:RYSO.0000021405.18890.63>
- Canli, T., & Lesch, K. P. (2007). Long story short: The serotonin transporter in emotion regulation and social cognition. *Nature Neuroscience*, 10, 1103–1109. <https://doi.org/10.1038/nn1964>
- Ceobanu, A. M., & Escandell, X. (2010). Comparative analyses of public attitudes toward immigrants

- and immigration using multinational survey data: a review of theories and research. *Annual Review of Sociology*, 36, 309–328. <https://doi.org/10.1146/annurev.soc.012809.102651>
- Collins, K. A., & Clément, R. (2012). Language and prejudice: Direct and moderated effects. *Journal of Language and Social Psychology*, 31, 376–396. <https://doi.org/10.1177/0261927x12446611>
- Eagly, A. H., & Chaiken, S. (1998). Attitude structure and function. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 269–322). McGraw-Hill.
- Ekehammar, B., Akrami, N., & Araya, T. (2003). Gender differences in implicit prejudice. *Personality and Individual Differences*, 34, 1509–1523. [https://doi.org/10.1016/S0191-8869\(02\)00132-0](https://doi.org/10.1016/S0191-8869(02)00132-0)
- Flynn, F. J. (2005). Having an open mind: The impact of openness to experience on interracial attitudes and impression formation. *Journal of Personality and Social Psychology*, 88, 816. <https://doi.org/10.1037/0022-3514.88.5.816>
- Ford, R. (2008). Is racial prejudice declining in Britain? Is racial prejudice declining in Britain? *The British Journal of Sociology*, 59, 609–636. <https://doi.org/10.1111/j.1468-4446.2008.00212.x>
- Gallego, A., & Pardos-Prado, S. (2014). The Big Five personality traits and attitudes towards immigrants. *Journal of Ethnic and Migration Studies*, 40, 79–99. <https://doi.org/10.1080/1369183X.2013.826131>
- Heissler, R., Doubková, N., & Preiss, M. (2022). *Hodnocení skrytého a zjevného rasismu za pomoci implicitních a explicitních metod* [Assessing covert and overt racism using implicit and explicit methods]. Manuscript submitted for publication.
- 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, 5–24. <https://doi.org/10.1080/00313830120115589>
- Hoření, K. (2018). *Co si myslíš o...: Předsudky v české společnosti a jak s nimi účinně pracovat ve škole* [What do you think about...: Prejudices in Czech society and how to effectively work with them at school]. Ústav pro studium totalitních režimů: Sociologický ústav AV ČR, v.v.i.
- Hřebíčková, M., Jelínek, M., Blatný, M., Brom, C., Burešová, I., Graf, S., Mejzlíková, T., Vazsonyi, A. T., & Záborská, K. (2016). Big Five Inventory: Základní psychometrické charakteristiky české verze BFI-44 a BFI-10 [Big Five Inventory: Basic psychometric properties of the Czech version of BFI-44 and BFI-10]. *Československá Psychologie*, 60, 567–583.
- Iyengar, S., Sood, G., & Lelkes, Y. (2012). Affect, not ideology: a social identity perspective on polarization. *Public Opinion Quarterly*, 76, 405–431. <https://doi.org/10.1093/poq/nfs038>
- Jackson, J. W., & Poulsen, J. R. (2005). Contact experiences mediate the relationship between five-factor model personality traits and ethnic prejudice. *Journal of Applied Social Psychology*, 35, 667–685. <https://doi.org/10.1111/j.1559-1816.2005.tb02140.x>
- John, O. P., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102–138). Guilford Press.
- Jonason, P. K., Underhill, D., & Navarrate, C. D. (2020). Understanding prejudice in terms of approach tendencies: The Dark Triad traits, sex differences, and political personality traits. *Personality and Individual Differences*, 153, 109617. <https://doi.org/10.1016/j.paid.2019.109617>
- Jonáš, J. (2013). Theoretical and methodological aspects in anthropological research of stereotypes. *Prace Etnografické*, 41, 297–307. <https://doi.org/10.4467/22999558.PE.13.027.1368>
- Jorm, A. F., & Oh, E. (2009). Desire for social distance from people with mental disorders. *Australian and New Zealand Journal of Psychiatry*, 43, 183–200. <https://doi.org/10.1080/00048670802653349>
- Kamarádová, D., Praško, J., Látalová, K., Panáčková, L., Švancara, J., Ocisková, M., Grambal, A., Sigmundová, Z., Jelenová, D., Kováčsová, A., Cakirpaloglu, S., Kasalová, P., Bareš, V., & Vrbová, K. (2016). Validizace české verze Beckova inventáře úzkosti [Validation of Czech version of Beck Anxiety Inventory]. *Česká a Slovenská Psychiatrie*, 112, 153–158.
- Karakayali, N. (2009). Social distance and affective orientations. *Sociological Forum*, 24, 538–562. <https://doi.org/10.1111/j.1573-7861.2009.01119.x>
- Kosic, A., & Phalet, K. (2006). Ethnic categorization of immigrants: The role of prejudice, perceived acculturation strategies and group size. *International Journal of Intercultural Relations*, 30, 769–782. <https://doi.org/10.1016/j.ijintrel.2006.06.003>
- Liu, M., Conrad, F. G., & Lee, S. (2017). Comparing acquiescent and extreme response styles in face-to-face and web surveys. *Quality & Quantity*, 51, 941–958. <https://doi.org/10.1007/s11135-016-0320-7>
- Lyons, P. (2016). *Are Czech prejudiced? Contemporary Czech Society*. The Institute of Sociology of the Czech Academy of Sciences, Prague.
- Park, R. E. (1924). The concept of social distance as applied to the study of racial attitudes and racial relations. *Journal of Applied Sociology*, 8, 339–344.
- Parrillo, V. N., & Donoghue, C. (2005). Updating the Bogardus social distance studies: a new national survey. *The Social Science Journal*, 42, 257–271. <https://doi.org/10.1016/j.soscij.2005.03.011>
- Parrillo, V. N., & Donoghue, C. (2013). The national social distance study: Ten years later. *Sociological Forum*, 28, 597–614. <https://doi.org/10.1111/socf.12039>
- Pavlović, M., & Purić, D. (2016). Basic personality traits as correlates of implicit prejudice. *Primenje-*

- na Psihologija*, 9, 125–140. <https://doi.org/10.19090/pp.2016.2.125-140>
- Pettigrew, T. F. (2009). Probing the complexity of intergroup prejudice. *International Journal of Psychology*, 44, 40–42. <https://doi.org/10.1080/00207590802057936>
- Pettigrew, T. F., & Meertens, R. W. (1995). Subtle and blatant prejudice in Western Europe. *European Journal of Social Psychology*, 25, 57–75. <https://doi.org/10.1002/ejsp.2420250106>
- Phillips, L. (2015). Homelessness: Perception of causes and solutions. *Journal of Poverty*, 19, 1–19. <https://doi.org/10.1080/10875549.2014.951981>
- Plana, I., Lavoie, M. A., Battaglia, M., & Achim, A. M. (2014). A meta-analysis and scoping review of social cognition performance in social phobia, post-traumatic stress disorder and other anxiety disorders. *Journal of Anxiety Disorders*, 28, 169–177. <https://doi.org/10.1016/j.janxdis.2013.09.005>
- Ptáček, R., Raboch, J., Vňuková, M., Hlinka, J., & Anders, M. (2016). Becková škála deprese BDI-II – standardizace a využití v praxi [The Beck Depression Inventory BDI-II – standardization and its use in practice]. *Česká a Slovenská Psychiatrie*, 112, 270–274.
- Radvansky, G. A., Copeland, D. E., & von Hippel, W. (2010). Stereotype activation, inhibition, and aging. *Journal of Experimental Social Psychology*, 46, 51–60. <https://doi.org/10.1016/j.jesp.2009.09.010>
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The Big Five personality factors and personal values. *Personality and Social Psychology Bulletin*, 28, 789–801. <https://doi.org/10.1177/01461617202289008>
- Ryšavý, D. (2003). Sociální distance vůči Romům. Případ vysokoškolských studentů [Social distance towards Roma. The case of university students]. *Sociologický Časopis*, 39, 55–78.
- Sibley, C. G., & Duckitt, J. (2008). Personality and prejudice: a meta-analysis and theoretical review. *Personality and Social Psychology Review*, 12, 248–279. <https://doi.org/10.1177/1088868308319226>
- Sidanius, J., & Pratto, F. (2001). *Social dominance: an intergroup theory of social hierarchy and oppression*. Cambridge University Press.
- Sparkman, D. J., Eidelman, S., & Blanchar, J. C. (2016). Multicultural experiences reduce prejudice through personality shifts in openness to experience. *European Journal of Social Psychology*, 46, 840–853. <https://doi.org/10.1002/ejsp.2189>
- Verberk, G., Scheepers, P., & Felling, A. (2002). Attitudes and behavioural intentions towards ethnic minorities: an empirical test of several theoretical explanations for the Dutch case. *Journal of Ethnic and Migration Studies*, 28, 197–219. <https://doi.org/10.1080/13691830220124297>
- von Hippel, W. (2007). Aging, executive functioning, and social control. *Current Directions in Psychological Science*, 16, 240–244. <https://doi.org/10.1111/j.1467-8721.2007.00512.x>
- Wark, C., & Galliher, J. F. (2007). Emory Bogardus and the origins of the social distance scale. *The American Sociologist*, 38, 383–395. <https://doi.org/10.1007/s12108-007-9023-9>
- Weinfurt, K. P., & Moghaddam, F. M. (2001). Culture and social distance: a case study of methodological cautions. *The Journal of Social Psychology*, 141, 101–110. <https://doi.org/10.1080/00224540109600526>
- Williams, J. E. (2015). Social distance. In G. Ritzer (Ed.), *The Blackwell encyclopedia of sociology*. Wiley Online Library. <https://doi.org/10.1002/9781405165518.wbeoss145.pub2>