

DOI: [10.52950/SS.2024.13.1.003](https://doi.org/10.52950/SS.2024.13.1.003)

UNCOVERING STEREOTYPES TOWARDS ROMA IN THE CZECH AND SLOVAK REPUBLIC BASED ON OBSERVATIONAL DATA

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Abstract:

This study investigates stereotypes towards the Roma minority in the Czech and Slovak Republics, bridging a literature gap. Using 2014 Ipsos survey data, it examines financial, physical, welfare, and wealth insecurities' impact on personal perceptions of Romas. Through principal component analysis and demographic control (age, education, income, and family size), nuanced insights emerge. Financial insecurity correlates with less favorable attitudes towards Roma neighbors, while physical insecurity leans towards acceptance. Age inversely relates to intolerance, with income, education, and regional factors insignificantly impacting attitudes. These findings offer experimental evidence for minority-majority dynamics, informing efforts to combat biases and promote societal cohesion through intergroup dialogue.

Keywords:

Roma, perception, stereotypes, minorities, principal component analysis

JEL Classification: A13, A14, J71

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Citation:

STANISLAVA BAJZÍKOVÁ (2024). Uncovering stereotypes towards Roma in the Czech and Slovak Republic based on observational data. *International Journal of Social Sciences*, Vol. XIII(1), pp. 33-50., 10.52950/SS.2024.13.1.003

Introduction

The integration of Roma into society presents a complex challenge due to the pervasive influence of stereotypes, a phenomenon deeply rooted in sociological dynamics. Stereotypes, succinctly defined as "mental representations of real differences between groups, allowing easier and more efficient processing of information" (Hilton and von Hippel, 1996; Bordalo, 2014), were initially introduced into psychological discourse by Walter Lippmann in 1922 and continue to hold significant cognitive sway (Weinerová, 2014). Scholars have identified race and ethnicity as primary triggers for stereotypical perceptions across diverse contexts (Zel'ová, 2008).

The term "stereotype" is commonly interchanged with terms such as prejudices, or discrimination: But one should be aware of the fact that these exhibit subtle yet crucial distinctions. Stereotypes, operating at the level of cognitive constructs, precede prejudices, which materialize as specific attitudes, and discrimination, which manifests in overt behaviors (Heywood, 2008). In the context of race and ethnicity, stereotypes are intricately interwoven within complex ideological frameworks that justify the subordination of certain groups, portraying them as inherently inferior both biogenetically and culturally (Heywood, 2008).

Stereotypes serve as mirrors reflecting societal perceptions of various groups, shaping impressions by ascribing generalized attributes to individuals irrespective of their unique characteristics. These attributions, whether positive or negative, often result from oversimplification and indirect generalization, functioning as cognitive filters that facilitate the processing of social information (Ferguson, 2004; Geist, 1992). Moreover, stereotypes play a pivotal role in organizing reality and expediting social assessments, thus aiding individuals in navigating the complexities of the social world (Hilton and von Hippel, 1996; Bordalo, 2014).

Furthermore, historical processes significantly contribute to the formation and perpetuation of stereotypes, particularly evident in the case of Roma stereotypes. These stereotypes are deeply entrenched in historical narratives, exhibiting minimal variability across generations as experiences are transmitted from one generation to the next. Consequently, understanding the pervasive influence of stereotypes is paramount in addressing the multifaceted challenges encountered in the integration of Roma into society.

I have chosen to focus my research on stereotypes due to their critical role in understanding how the majority perceives the Roma community within the Czech Republic and Slovakia. This importance is evidenced by prevalent incidents and attitudes within Czech (and Slovak) society, as well as recent scholarly investigations. For instance, idnes.cz, the foremost online news media outlet in the Czech Republic, reported in September 2022ⁱ on a communal election campaign where certain candidates depicted Roma individuals on their billboards as "parasites" or assigned derogatory attributes. Additionally, Vecci and Želinský (2019) conducted a study surveying marginalized Roma children in Slovakia, revealing that reminders or activation of their Roma identity detrimentally affected their cognitive performance.

Furthermore, in neighboring Hungary, Orosz et al. (2018) discovered that "more than 76% of the respondents reported being exposed to negative stereotypes about the Roma, 27% to threats posed by Roma, and 16% to overt dehumanization of Roma; additionally more than 20% reported hearing no positive sentiments about the Roma in everyday family conversations."

Thus, I deemed it imperative to delve deeper into this literature and illuminate the perceptions of the Roma by the broader populace. In examining stereotypes directed towards the Roma, I not only explored the general outlook on the Roma but also delved into how Roma perception

intersects with the perception of other minority groups in the Czech Republic. Additionally, I sought to ascertain whether views on the Roma varied among individuals in the Czech Republic and, if so, identify the key determinants of such disparities. Consequently, I explored factors such as age, gender, education, number of children, income, country, and region. This investigation was guided by insights from Nastuta and Tompea (2011), who revealed that individuals with lower education levels and older age cohorts exhibit greater apprehension towards immigrants, with no discernible gender differences. Similarly, Küpper et al. (2010) highlighted a strong anti-immigrant orientation among individuals from low-income groups. Through this comprehensive analysis, I aim to contribute to a deeper understanding of stereotypes and their implications for minority-majority relations in Central Europe.

In pursuit of a comprehensive and well-organized dataset to address my inquiries and areas of interest, I turned to a survey conducted in 2014 by the Czech branch of IPSOS, an agency specializing in market research. This unique survey engaged 1010 Czech respondents and 1012 Slovak respondents, encompassing dimensions such as belief systems, religious affiliations, societal trust levels, insecurities, and perceptions of inequality. A pivotal aspect of this survey, central to delineating the majority's attitudes towards the Roma minority, pertained to preferences regarding neighbors. Participants were tasked with ranking 19 distinct groups of individuals on a scale ranging from 1 to 7, where lower values denoted lower preference and higher values indicated higher preference. Given the historical and cultural proximity of Slovakia to the Czech Republic, both comprising a unified state for a considerable duration, I decided to leverage these data to comprehensively address inquiries pertaining to stereotypes and the Roma community. Concurrently, demographic characteristics of the survey participants were documented.

Turning to the empirical phase, I employed several methodological approaches in the investigation of stereotypes. Initially, I presented summary statistics to offer readers a quantitative overview of the focal issue. Subsequently, I conducted pairwise correlations and principal component analysis to elucidate the interrelationships among variables. Principal component analysis facilitated dimensionality reduction and enhanced data interpretation. Lastly, I employed ordinary least squares (OLS) regression analysis to construct predictive models elucidating the primary drivers of stereotypes towards the Roma minority.

Preliminary findings from this inquiry unveiled an evident sense of suspiciousness towards the Roma community, as evidenced by their designation among the three most undesirable neighbors, alongside Muslims and drug addicts, with only the latter being rated with greater undesirability. This observation served as a catalyst for further investigation, prompting inquiry into the validity of these concerns and fears, discerning whether they stem from genuine threats or are merely products of perceptual biases.

After careful analysis, I have found that individuals who perceive themselves as financially insecure, expressing concerns regarding their future or job prospects, exhibit a reluctance to welcome potential Roma neighbors. Similarly, those lacking confidence in governmental institutions, national health services, or the general willingness of society to provide assistance—indicative of welfare insecurity—tend to harbor similar attitudes. Conversely, individuals experiencing physical insecurity demonstrate a greater propensity to welcome Roma neighbors. Furthermore, I have observed a negative correlation between age and intolerance towards Romas, suggesting that older respondents are generally less intolerant. Notably, factors such as income level, educational attainment, number of children, country of residence, and regional location do not significantly influence these findings, as confirmed by robustness checks.

The subsequent sections of this paper are structured as follows: Section 2 provides an in-depth examination of the utilized dataset. Section 3 outlines the methodological approaches employed in this study, while Section 4 presents the empirical results. Section 5 engages in a comprehensive discussion of the findings, and Section 6 offers concluding remarks. Additional supplementary results and tables are appended for reference in the appendix.

The Survey

The paucity of data regarding Roma and other minority communities presents a substantial challenge. To address this limitation, I had the fortuitous opportunity to leverage a unique survey conducted by the Czech branch of IPSOS, a prominent market research agency, in 2014. This survey, originally executed in English, underwent meticulous translation into the languages spoken by the respondents by a professional bilingual translator, ensuring linguistic accuracy and fidelity to the original survey constructs.

This distinctive dataset was initially collated for research on religiosity in the Czech Republic and Slovakia, spearheaded by Willard and Cingl (2017) and subsequently expanded upon by Willard et al. (2020). I extend my sincere appreciation to these esteemed researchers for their generosity in granting access to this invaluable dataset. The survey comprehensively delved into various domains, encompassing religion, anthropomorphism, dualism, mentalizing, teleology, and analytic thinking. Moreover, it included a battery of questions aimed at gauging participants' perceptions of financial insecurity (pertaining to apprehensions regarding financial stability), social insecurity (entailing concerns about governmental social services), perceptions of inequality (pertaining to views on the wealth gap), and trust (in fellow members of society). These facets were integral to delineating the majority's relationship with the Roma minority and constituted a foundational aspect of our analytical framework.

Furthermore, the dataset was enriched with supplementary information gleaned from official censuses and governmental agencies, meticulously organized by country and district. This meticulous curation facilitated a nuanced understanding of regional dynamics and contextual factors shaping societal perceptions. As a result, the final dataset comprised an extensive array of 223 variables, encapsulating multifaceted dimensions of social, economic, and demographic phenomena.

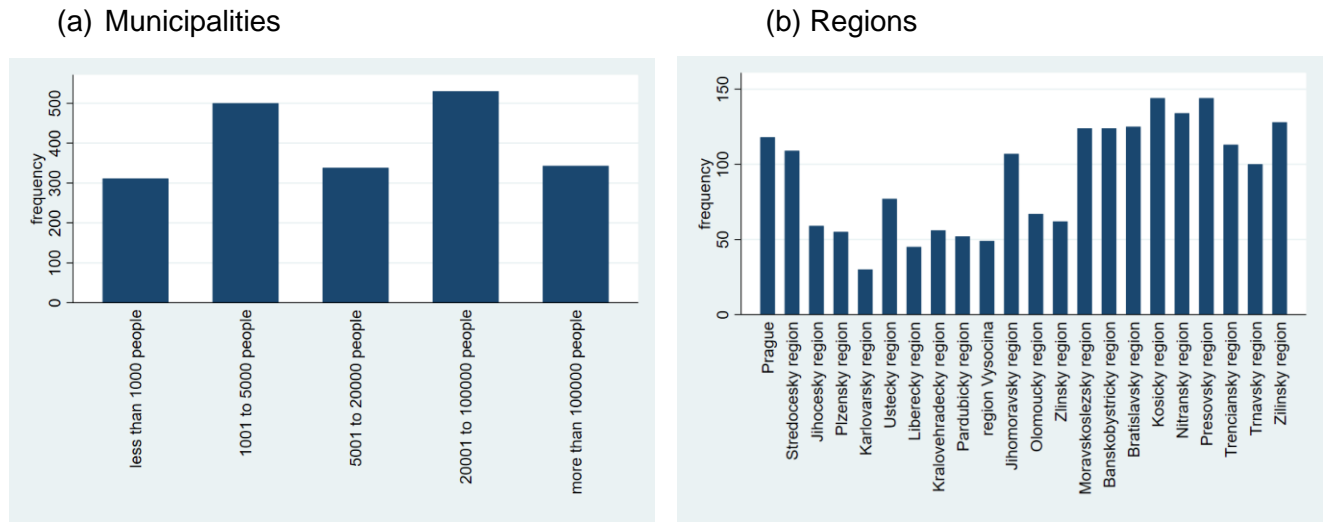
From this comprehensive repository of data, I judiciously selected 25 variables for rigorous analysis, strategically focusing on our dependent variable, the Roma minority, alongside 19 questions gauging personal perceptions (which were condensed into four principal components) and pertinent demographic variables including education, income, number of children, region, and country of origin (Czech Republic or Slovakia). Notably, given the breadth of the dataset, certain variables were deemed unsuitable for our research objectives or demonstrated negligible significance in our analytical framework.

The IPSOS conducted data collection from a paid subject pool, yielding a final representative sample comprising 2022 respondents (Czech Republic: $N = 1010$; Slovakia: $N = 1012$). Respondents from both countries were selected to ensure demographic balance in terms of age, gender, income, and region. Each country's sample comprised an equal distribution of 50% females and 50% males, with females having a mean age of 42 years ($SD = 13.60$) and males with a mean age of 40 years ($SD = 12.83$). Regarding residential distribution, 40% of respondents inhabited municipalities with populations up to 5000, 43% resided in mid-sized cities with populations ranging from 20,000 to 100,000, and 17% lived in larger urban centers.

The entirety of the sample encompasses representation from both the Czech Republic and Slovakia, with further stratification by specific regions within each country. In the Czech

Republic, the Moravskoslezský region predominates, comprising 6% of the total survey population. Conversely, in Slovakia, the Prešovský and Košický regions emerge as the most represented, each constituting 7% of the overall sample. Notably, these regions in Slovakia are identified as having the highest Roma populations according to the latest Census data from the Slovak Statistical Office (2022). These key demographic characteristics of the survey participants are depicted graphically in Histograms 1.

Histogram 1: Distribution of the population across cities and regions



Notes: The Histogram 1(a) shows the distribution of the respondents across the size of the municipalities. The Histogram 1 (b) displays the distribution across the various regions of Czech Republic and Slovakia.

Data description and current literature

The primary inquiry employed to ascertain the majority's disposition towards the Roma community centered on neighbor preferences. The complete wording of the query is as follows: "In the following list are various groups of people. For each of the following groups rate how much you would like them as your neighbors, using a 1-7 scale (where 1 = 'Not at all' and 7 = 'A lot')." In response to this question, participants were prompted to assess their willingness to have Roma neighbors using a rating scale ranging from 1 to 7. Similarly, identical inquiries were posed regarding 18 other groups and minorities, some of which were associated with potentially contentious issues. A synthesis of the findings derived from these inquiries is presented in Table 1 below:

Table 1: Perception of the minorities by the majority population. Romas among the least popular.

Variable	Obs	Mean	Std. Dev	Min	Max
(1)	(2)	(3)	(4)	(5)	(6)
Catholics	1,982	4,18	1,63	1	7
Protestants	1,982	3,31	1,61	1	7
Muslims	1,973	2,32	1,44	1	7
Jews	1,978	3,68	1,55	1	7

Hindus	1,978	3,13	1,59	1	7
Germans	1,979	4,08	1,56	1	7
Slovaks	988	4,67	1,52	1	7
Arabs	1,977	2,45	1,48	1	7
Vietnamese	1,986	3,22	1,55	1	7
Polish	1,984	3,91	1,57	1	7
Gypsies	1,979	1,84	1,32	1	7
Russians	1,984	3,39	1,61	1	7
Americans	1,987	3,94	1,57	1	7
Japanese	1,979	3,80	1,64	1	7
Chinese	1,983	3,26	1,56	1	7
Homosexuals	1,980	3,46	1,73	1	7
People using drugs	1,991	1,47	1,09	1	7
Atheists	1,987	4,08	1,69	1	7
Czechs	993	5,11	1,53	1	7

Notes: Table 1 provides a comprehensive overview of the minority perception by the majority. The first column indicates the respective minorities. The second column shows the number of observations for each minority group. The third column displays the mean of the answers on the question, whether people would like have to have the minority member as a neighbor. It is rated on the scale from 1 "Not at all" to 7 "A lot". The columns 4-6 shows the respective standard deviation, minimum and maximum.

Table 1 provides a comprehensive snapshot of prevailing societal attitudes towards minority groups, with Romas (Gypsies) emerging as the second least desirable group to have as neighbors, ranking only above "drug addicts." This positioning underscores the deep-seated negative perceptions associated with the Roma community, surpassing even other minority groups such as Muslims and Vietnamese individuals, who represent significant populations in the Czech and Slovak Republics. Among the 1,979 respondents surveyed, an overwhelming majority—63% comprising 1,256 individuals—expressed an unequivocal reluctance to reside alongside Roma neighbors. These stark figures serve as a poignant reflection of the pervasive societal bias against the Roma community, highlighting the formidable challenges they face in integration and social acceptance.

In stark contrast, Slovaks and Czechs are perceived as highly acceptable neighbors by their respective counterparts, garnering overwhelmingly positive reception. A mere 5% of Czech respondents expressed reluctance to reside near Slovaks, while 47% expressed willingness to welcome Slovak neighbors. Similarly, only 3% of Slovak respondents expressed aversion to Czech neighbors, with 57% expressing a favorable disposition towards them. Additionally, other minority groups such as Catholics, Atheists, and Germans are also viewed favorably as

neighbors, further underscoring the nuanced dynamics of social acceptance and integration within these societies.

The prevailing negative perception of Roma communities as undesirable neighbors is a complex phenomenon rooted in deeply ingrained stereotypes rather than inherent negative characteristics of the Roma population. This contention is supported by a study conducted by Renata Weinerova (2014), which surveyed 184 respondents in the Ustecky region of the Czech Republic regarding their attitudes towards Roma/Gypsy culture. The findings revealed that 56% of respondents perceived Roma culture as romantic, primarily linked to the folklore history of Roma and characterized by predominantly positive stereotypes. However, it is imperative to approach these findings with caution, as the "romantic view" may inadvertently obscure the harsh historical realities and systemic discrimination faced by Roma communities (Scholz, 2007). This nuanced understanding underscores the imperative of challenging and dismantling entrenched stereotypes to foster genuine social cohesion and inclusivity.

My interest extends beyond merely understanding how the Roma community is perceived by the majority; I aim to delve into the underlying factors shaping these perceptions. Specifically, I seek to unravel the primary drivers behind negative or positive attitudes towards the Roma, exploring whether factors such as fear, financial insecurity, welfare concerns, or trust in societal institutions play pivotal roles. Additionally, I aim to investigate whether personal characteristics such as age, gender, number of children, or educational attainment exert significant influence on attitudes towards the Roma.

Existing literature on minority populations, particularly the Roma, provides valuable insights into this realm of inquiry. For instance, Želinský (2020) elucidates the concept of stereotype threat, wherein negative stereotypes can detrimentally impact the outcomes of stereotyped groups, as evidenced by an 11% decrease in performance among adult Roma when negative stereotypes are activated (Gunther et al., 2010). Similarly, Orosz et al. (2018) explore anti-Roma prejudices and sentiments in Hungary, analyzing sentiments prevalent in everyday life among the majority population. Gligoric et al. (2021) investigate how the Serbian majority population's perceptions of Romani individuals are influenced by the labels assigned to them, finding that the use of neutral labels leads to more positive perceptions. Additionally, Vardi et al. (2021) examine the formation of prejudices and attitudes towards Roma among adolescent high-school students, highlighting the crucial role of peer influence in shaping intergroup attitudes during adolescence.

In line with these scholarly inquiries, I aim to explore both societal and participant-related characteristics within the context of the Roma community. Fortunately, the Ipsos survey provides a wealth of information on these variables, obviating the need to seek additional sources. These characteristics, along with their definitions, scales, means, and standard deviations, are comprehensively summarized in Table 2. During the estimation process, some of these variables will undergo principal components analysis, while the remainder will be subjected to classical ordinary least squares (OLS) regression analysis. This multifaceted approach promises to yield nuanced insights into the complex interplay of factors shaping attitudes towards the Roma community.

Table 2: Variables description

Variable	Obs	Mean	Std. Dev	Min	Max
educ	2,022	1.641939	.9146571	0	3
income	2,022	3.289812	2.186071	0	10
age	2,022	40.98417	13.22719	18	65
Num_child	2,022	2.025717	.9894702	0	8

Notes: Table 2 displays the number of observation, mean, standard deviation, minimum and maximum of the variables used in the analysis. Variable “educ” is categorical variable that ranges from 0 to 3, where 0 indicates that the respondent has only elementary education, 1 stands for high school education without certificate, 2 is high school education with certificate and 3 is university education. Similarly, variable “income” is categorical. It is measured on scale of 0 to 10. Where the group 0 are people without income, group 1 are people with income under 400 Eur and it goes on till the category 10, where are grouped people with income above 3200 Eur. The variable age captures the “age” of the respondents and the variable “Num_child” stands for the number of children.

In terms of education, the population exhibits the following distribution: 12% of participants have completed only elementary education, 31% have finished high school without obtaining a certificate, 38% have completed high school education and received a certificate, while 18% have attained some form of university education, including bachelor's, master's, or doctoral degrees.

Regarding income, a significant proportion of respondents fall within the lower income brackets, with 65% reporting a net income of 600 Euros or less per month (referring to individual income rather than household income). Furthermore, 90% of respondents report a net income of no more than 1500 Euros per month. For comparison, the average net income in the Czech Republic and Slovakia in 2014 (the year of the survey) ranged between 700 and 750 Euros^{ii,iii}.

In terms of age composition, the sample comprises individuals distributed across various age brackets: 16% are aged 25 years and younger, 22.5% fall within the 26 to 35 age group, 21% are aged 36 to 45, 22% fall within the 46 to 55 age range, and 18.5% of respondents are aged 56 to 65. Existing literature suggests that attitudes towards minorities may evolve with age (Nastuta and Tompea, 2011). However, in our case, this assertion may not hold true, as evidenced by the data. Interestingly, the lowest tolerance towards Roma is exhibited by individuals at 53 years of age, with an average rating of 1.34 indicating their reluctance to have Roma as neighbors, whereas individuals at 55 years of age display the highest tolerance, with an average rating of 2.30 indicating a greater willingness to accept Roma neighbors.

Lastly, the number of children is mentioned as a control variable, as attitudes towards minorities may vary depending on whether an individual is single or has children. Therefore, this aspect is also scrutinized in the study, with the aim of understanding its potential influence on attitudes towards the Roma community.

Methodology

To explore the diverse characteristics of individuals and their relationships with perceptions of the Roma community, I employ several analytical techniques, including pairwise correlation, principal component analysis (PCA), and ordinary least squares (OLS) estimation.

Pairwise correlation analysis enables us to identify any mutual correlations among the variables under consideration. This analysis serves a dual purpose: firstly, it indicates whether the variables are correlated with the dependent variable, providing an initial indication of their potential predictive power for Roma perception. Secondly, it helps identify and address any inter-correlations among the independent variables, thereby mitigating the risk of distortion in the results. Notably, in our analysis, no variable pairs exhibited high correlations exceeding 0.9. The highest correlation coefficient was observed for the duo QH1_2 and QH1_3, with a pairwise correlation of 0.7619. For a comprehensive review of correlation coefficients, refer to Table A.1 in the Appendix.

Subsequently, principal component analysis is conducted to reduce the dimensionality of the dataset and elucidate its underlying structure. This analysis yields a correlation or covariance matrix derived from the covariance matrix of the original variables. The resulting components are presented in orthonormal form, ensuring that they are uncorrelated and normalized. In our study, the variables were grouped into four principal components, each addressing distinct areas of interest: Financial insecurity, Welfare insecurity, Wealth inequality and trust, and Physical insecurity. These components, along with the corresponding questionnaire items, are summarized in Table 3 for clarity and reference.

Table 3: Questions included in the particular principal components.

Component 1 – Financial insecurity

QH1_1 How often do you feel you cannot afford to buy items you need?

QH1_2 How often do you worry about having enough money in the future?

QH1_3 How often do you worry about what your household financial situation will be like in 12 months?

QH1_4 How often do you worry about losing your job?

Component 2 – Welfare insecurity

QH2_1 How much do you feel the government help would be sufficient if you lose your job?

QH2_2 Do you think the national health services will take good care of you if you fall sick?

QH2_3 How confident are you in your country's social security system?

Component 3 – Wealth inequality and trust

QH2_5 How much do you think that most rich people acquire their wealth by some illegal methods?

QH2_6 How much do you think there is too large of a gap between rich and poor?

QH2_7 Generally speaking, how much would you say that most people can be trusted or that you need to be very careful in dealing with people?

QH2_9 Would you say that most of the time people try to be helpful?

Component 4 – Physical insecurity (+ financial security)

QH1_5 How often do you feel unsafe walking alone on your local area after dark?

QH1_6 How often do you worry about being burgled?

QH1_7 How often do you worry about being a victim of violent crime?

QH1_2 How often do you worry about having enough money in the future?

QH1_3 How often do you worry about what your household financial situation will be like in 12 months?

Notes: Table 3 summarizes questions included in particular principal components. Principal component analysis helps to lower the number of dimensions and hence enables me to estimate and interpret the desired relationship better. The pairwise correlation coefficients of mentioned variables are summarized in Table A.1 in the appendix.

Moving to the predictive phase of the analysis, I propose the implementation of a simple ordinary least squares (OLS) estimator. OLS is a widely employed method for analyzing data, particularly in regression analysis, where it assesses the relationship between a dependent variable and one or more explanatory variables. The key principle of OLS is to estimate parameters that minimize the sum of squared residuals, thereby optimizing the fit of the model to the data (Dismuke and Lindrooth, 2006).

In this chapter, I utilize two OLS regression models to elucidate the relationship between our dependent variable—representing ratings of willingness to have Roma as neighbors—and a set of explanatory variables. The explanatory variables primarily consist of four principal components derived from our earlier analysis, along with additional variables such as education, income, and the number of children in the family. Specifically, the regressions undertaken are as follows:

$$\begin{aligned} \text{LoveRomaScale}_i = & \alpha + \beta_1 \text{FinInsec} + \beta_2 \text{PhysInsec} + \beta_3 \text{WelfInsec} + \beta_4 \text{WealthIneq} + \\ & + \beta_5 \text{Age} + \gamma \text{Controls}_1 + \varepsilon_i, \end{aligned} \quad (1)$$

where *LoveRomaScale* indicates individual's preference about having Roma as a neighbor on the scale 1 to 7 (really do not want Roma as a neighbor). *FinInsec* stands for Financial Insecurity principal component variable, *PhysInsec* is Physical insecurity principle component variable, *WelfInsec* is Welfare Insecurity and *WealthIneq* abbreviates Wealth inequality and Trust Principal Component variable. I control for Age adjusted by its minimal value and add a set of control variables as education, income or the number of children in the family. The results of the equation (1) are summarized in the Table 4. Besides I adjust the equation to

$$\begin{aligned} \text{LoveRomaDummy}_i = & \alpha + \beta_1 \text{FinInsec} + \beta_2 \text{PhysInsec} + \beta_3 \text{WelfInsec} + \beta_4 \text{WealthIneq} + \\ & + \beta_5 \text{Age} + \gamma \text{Controls}_1 + \varepsilon_i, \end{aligned} \quad (2)$$

where the only difference to the equation (1) lies in the form of dependent variable, which is now dummy. The transposition between scale and dummy variable is that values 1-3 from the scales turn to be 0 in the dummy regression and values 4-7 becomes 1. I estimate the equation on the whole population and then for Czech subsample and Slovak one. The estimation of equation (2) is conducted on the entire sample population, followed by separate estimations for the Czech and Slovak subsamples. The results from equation (2) are synthesized in Table 5, and a detailed analysis of these regression results is provided in the subsequent section. All

estimations were performed using the statistical software Stata, ensuring robust and reliable analysis of the data.

Results

As the primary analysis, I employed equation (1) using ordinary least squares (OLS), with the dependent variable measured on a scale ranging from 1 to 7, representing respondents' perceptions of Roma. To address potential heteroscedasticity in the estimates, robust standard errors were utilized. The findings of this analysis are presented in Table 4, providing a concise summary of the results.

The results of the first regression reveal that all principal components were statistically significant at the 1% confidence level, indicating their strong association with respondents' perceptions of Roma. Additionally, the variable age exhibited significance at the 5% level. Conversely, other factors such as gender, education, income, number of children, as well as most regions and municipality sizes, were found to be insignificant and therefore not included in the reported table. These results suggest that these variables do not significantly influence the majority's opinions towards Roma. This partially aligns with the findings of Orosz et al. (2018), who observed that intolerance towards Romas decreases with education and does not vary significantly by gender.

Furthermore, the significant results indicate that financial insecurity, physical insecurity, welfare insecurity, and wealth insecurity and trust significantly impact people's perceptions of Roma. For instance, individuals who experience financial insecurity, characterized by concerns about affording necessities and worries about future financial stability, are less likely to welcome potential Roma neighbors. Similarly, individuals experiencing welfare insecurity, reflected in a lack of perceived support from the government, national health services, and social security systems, also exhibit less warmth towards Roma neighbors. This finding corroborates the conclusions drawn by Bernat et al. (2013) in their study of the Roma minority in Hungary, highlighting the influence of socio-economic factors on perceptions of minority groups.

Table 4: Who does not prefer Romas?

VARIABLES	(1) Equation 1
Financial Insecurity	-0.099*** (0.015)
Physical Insecurity	0.197*** (0.022)
Welfare Insecurity	-0.091*** (0.026)
Wealth Insecurity and Trust	-0.086***

	(0.026)
Age	0.005**
	(0.002)
Constant	0.554
	(0.338)
Observations	1,812
R-squared	0.115

Notes: The estimation follows equation (1) including the controls as education, income and number of children in the family. Robust standard errors are in parentheses. Stars indicating following significance levels

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

On the contrary, the observed effect of physical insecurity contradicts existing literature, such as the findings of Orosz et al. (2018), who reported that 44.8% of individuals perceive Romas as "criminals." My results indicate that individuals who feel unsafe, harbor concerns about burglary or violent crime victimization (physical insecurity), are more inclined to accept Roma neighbors. While this may seem counterintuitive, it could be influenced by prevailing stereotypes towards Roma. Weinerova (2014) suggests that individuals are attracted to Roma's sense of humor, musical talents, and freedom of expression.

Furthermore, individuals who lack trust in the integrity of wealthy individuals or doubt people's willingness to help in general are more likely to avoid Roma neighbors. Additionally, regarding the age variable, the results demonstrate a linear relationship between perceptions of Roma and respondent age. Specifically, as individuals age, their intolerance towards Roma decreases. This finding is consistent with the notion that worldview typically evolves with age, as suggested by Orosz et al. (2018) in their analysis of Roma perception by the majority in Hungary in 2015.

Robustness test

In addition to the baseline analysis, three robustness tests were conducted, as summarized in Table 5. The first test involved replacing the categorical variable representing perceptions of Roma with a dummy variable indicating whether respondents preferred Roma neighbors (categorical variable values 4-7) or not (categorical variable values 1-3), while keeping the remaining variables unchanged. This robustness check reaffirmed our previous findings, as the significance and direction of each explanatory variable remained consistent. However, the significance of the Wealth Inequality and Trust principal component analysis (PCA) variable decreased from the 1% level to the 5% level. Moreover, while the intercept appeared significant, its proximity to negative perceptions of Roma persisted.

The second and third robustness checks, depicted in Table 5 columns (b) and (c), respectively, further divided the first robustness check into two subsamples: one for the Czech Republic and the other for the Slovak Republic. Once again, the results remained stable, exhibiting consistent directionality with slight variations in magnitude. Notably, in the case of the Wealth Inequality and Trust PCA variable and the age variable, there were variations in significance, particularly in the split datasets. These robustness tests revealed that Wealth Inequality and Trust did not significantly influence the attitudes of Slovaks towards the Roma community, and that age was not a significant indicator for either Czechs or Slovaks.

All three equations included a list of control variables, such as gender, education, income, number of children, as well as most regions and municipality sizes, akin to the baseline analysis. However, these variables were found to be insignificant in all three equations.

Table 5: The perception of the Roma's by majority is robust

VARIABLES	(1)	(2)	(3)
	Equation 2	CZE	SVK
Financial Insecurity	-0.020*** (-0.103)	-0.024*** (-0.130)	-0.016** (-0.079)
Physical Insecurity	0.051*** (0.207)	0.048*** (0.202)	0.052*** (0.206)
Welfare Insecurity	-0.029*** (-0.095)	-0.027** (-0.091)	-0.032*** (-0.101)
Wealth Inequality and Trust	-0.018** (-0.052)	-0.024** (-0.071)	-0.010 (-0.029)
Age	0.002** (0.059)	0.001 (0.053)	0.002 (0.056)
Constant	0.113* (.)	0.133 (.)	0.138** (.)
Observations	1,833	918	915
R-squared	0.085	0.095	0.083

Notes: The estimation follows equation (1) including the controls as education, income and number of children in the family. Robust standard errors are in parentheses. Stars indicating following significance levels *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Appendix

Table A.1

	QH5_11	QH1_1	QH1_2	QH1_3	QH1_4	QH1_5	QH1_6	QH1_7	QH2_2	QH2_3	QH2_5	QH2_6	QH2_7	QH2_9
QH5_11	1.0000													
QH1_1	-0.0579	1.0000												
QH1_2	-0.1166	0.5724	1.0000											
QH1_3	-0.0687	0.5772	0.7619	1.0000										
QH1_4	-0.0055	0.4339	0.5392	0.5634	1.0000									
QH1_5	-0.0454	0.2596	0.2734	0.2761	0.2455	1.0000								
QH1_6	-0.0223	0.2672	0.3190	0.3641	0.3474	0.4346	1.0000							
QH1_7	0.0234	0.2758	0.3118	0.3507	0.3128	0.5389	0.6007	1.0000						
QH2_2	0.1938	-0.1269	-0.1678	-0.1252	-0.1037	-0.0153	0.0639	0.0529	1.0000					
QH2_3	0.1998	-0.0848	-0.1171	-0.0907	-0.0584	-0.0376	0.0454	0.0281	0.5583	1.0000				
QH2_5	-0.1835	0.2125	0.2574	0.2399	0.1651	0.1310	0.1307	0.1319	-0.1447	-0.1211	1.0000			
QH2_6	-0.1686	0.2193	0.2643	0.2279	0.1723	0.1056	0.0536	0.0655	-0.1924	-0.1717	0.4663	1.0000		
QH2_7	-0.0239	0.0620	0.0591	0.0447	0.0273	0.0266	0.0628	0.0445	0.0610	0.0315	0.1205	0.1819	1.0000	
QH2_9	0.1508	-0.0845	-0.0885	-0.0789	-0.0601	-0.0315	-0.0238	-0.0334	0.2533	0.2524	-0.0370	0.0147	0.1407	1.0000

Notes: Table A.1 displays the pairwise correlation coefficients of all variables used in the principle component analysis. The highest correlation, 0.7619 is for variables QH1_2 and QH1

References

- Bernát, A., Juhász, A., Krekó, P., & Molnár, C. (2013). The roots of radicalism and anti-Roma attitudes on the far right. *On-line at: http://www.tarki.hu/en/news/2013/items/20130305_bernat_juhasz_kreko_molnar.pdf (accessed on 07.01. 2014).*
- Bordalo, P., Coffman, K., Gennaioli, N., & Shleifer, A. (2016). Stereotypes. *The Quarterly Journal of Economics*, 131(4), 1753-1794.
- Dismuke, C., & Lindrooth, R. (2006). Ordinary least squares. *Methods and Designs for Outcomes Research*, 93, 93-104.
- Ferguson, T. J. (2004): Perceiving Groups (Prejudice, Stereotypes and Discrimination), <http://www.usu.edu/psy3510/prejudice.html>
- Geist, Bohumil (1992): Sociologický slovník. Praha: Victoria Publishing, a.s.
- Gligorić V., Vilotijević A., Večkalov B., Does the term matter? The labeling effect on the perception of ethnic minorities: The case of The Romani in Serbia, *International Journal of Intercultural Relations*, 10.1016/j.ijintrel.2021.09.007, 85, (69-81), (2021).
- Günther, C., N. A. Ekinci, C. Schwierén, M. Strobel. 2010. "Women Can't Jump? — An Experiment on Competitive Attitudes and Stereotype Threat." *Journal of Economic Behavior & Organization* 75 (3): 395–401. doi:10.1016/j.jebo.2010.05.003.
- Heywood, Andrew (2008): Politické ideologie. Plzeň: Vydavatelství a nakladatelství Aleš Čeněk.
- Hilton, J. L., & Von Hippel, W. (1996). Stereotypes. *Annual review of psychology*, 47(1), 237-271.
- Küpper, B., Wolf, C., & Zick, A. (2010). Social status and anti-immigrant attitudes in Europe: An examination from the perspective of social dominance theory. *International Journal of Conflict and Violence (IJCV)*, 4(2), 205-219.
- Nastuta, S., & Tompea, A. D. (2011). Who is afraid of immigrants? Social predictors of fear of immigrants in Europe. *Sfera Politicii*, 19(12), 35.
- Orosz, G., Bruneau, E., Tropp, L. R., Sebestyén, N., Tóth-Király, I., & Böthe, B. (2018). What predicts anti-Roma prejudice? Qualitative and quantitative analysis of everyday sentiments about the Roma. *Journal of Applied Social Psychology*, 48(6), 317-328.
- Scholz, Roswitha (2007): Homo Sacer und „Die Zigeuner“. Antiziganismus – Überlegungen zu einer wesentlichen und deshalb „vergessenen“ Variante des modernen Rassismus. In: Exit! No. 4, 2007. <http://www.exit-online.org/link.php?tabelle=theoriezeitschrift&posnr=23> (navštíveno: 17. 8. 2012).
- Váradi L., Barna I., Németh R., Whose Norms, Whose Prejudice? The Dynamics of Perceived Group Norms and Prejudice in New Secondary School Classes, *Frontiers in Psychology*, 10.3389/fpsyg.2020.524547, 11, (2021).
- Vecci, J., & Želinský, T. (2019). Behavioural challenges of minorities: social identity and role models. *PloS one*, 14(7), e0220010.
- Weinerová, R. (2014). *Romové a stereotypy*. Charles University in Prague, Karolinum Press.
- Willard, A. K., & Cingl, L. (2017). Testing theories of secularization and religious belief in the Czech Republic and Slovakia. *Evolution and Human Behavior*, 38(5), 604-615.

Willard, A. K., Cingl, L., & Norenzayan, A. (2020). Cognitive biases and religious belief: A path model replication in the Czech Republic and Slovakia with a focus on anthropomorphism. *Social Psychological and Personality Science*, 11(1), 97-106.

Zel'ová, Alena (2008): Makrosociální jevy a procesy. In: Výrost J. – Slaměník I. (eds.), *Sociální psychologie*. Praha: Grad

