



## UvA-DARE (Digital Academic Repository)

### Dual pathway of prejudice in education

*teachers' paternalistic and hostile prejudice affecting minority girls*

Szekeres, Hanna; Bruneau, Emile; Doosje, Bertjan

#### DOI

[10.1007/s11218-025-10061-5](https://doi.org/10.1007/s11218-025-10061-5)

#### Publication date

2025

#### Document Version

Final published version

#### Published in

Social Psychology of Education

#### License

Article 25fa Dutch Copyright Act (<https://www.openaccess.nl/en/policies/open-access-in-dutch-copyright-law-taverne-amendment>)

[Link to publication](#)

#### Citation for published version (APA):

Szekeres, H., Bruneau, E., & Doosje, B. (2025). Dual pathway of prejudice in education: teachers' paternalistic and hostile prejudice affecting minority girls. *Social Psychology of Education*, 28, Article 103. <https://doi.org/10.1007/s11218-025-10061-5>

#### General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

#### Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, P.O. Box 19185, 1000 GD Amsterdam, The Netherlands. You will be contacted as soon as possible.



# Dual pathway of prejudice in education: teachers' paternalistic and hostile prejudice affecting minority girls

Hanna Szekeres<sup>1,2</sup> · Emile Bruneau<sup>3</sup> · Bertjan Doosje<sup>1</sup>

Received: 5 June 2024 / Accepted: 14 April 2025

© The Author(s), under exclusive licence to Springer Nature B.V. 2025

## Abstract

The current research focused on paternalism towards ethnic minority girls in the context of education. We aimed to contrast teachers' paternalistic prejudice with hostile prejudice and identify their unique associations with educational outcomes. Focusing on Roma girls in Hungary, we proposed a dual pathway of prejudice, comprising a 'cold path' and a 'warm path'. We surveyed Hungarian teachers ( $n=142$ ) and, using Structural Equation Modeling (SEM), we predicted and found that competence-related paternalism towards Roma girls (including competence perceptions and paternalistic educational attitudes, such as "they don't know what's good for them") was associated with unfavorable academic evaluations, such as track placement recommendation ('cold path'). Conversely, warmth-related hostility (including warm perceptions and hostile educational attitude, such as "they need firm discipline") was associated with reduced inclusiveness, reflected by a reluctance to welcome the student into the class ('warm path'). Our research advocates for educational integration efforts that acknowledge the complex nature of prejudice towards minority girls.

**Keywords** Paternalism · Warmth and competence · Minority girls · Education · anti-Roma bias

---

✉ Hanna Szekeres  
h.f.szekeres@uva.nl

<sup>1</sup> Department of Psychology, University of Amsterdam, Amsterdam, the Netherlands

<sup>2</sup> Department of Social Psychology, Institute of Psychology, ELTE Eötvös Loránd University, Budapest, Hungary

<sup>3</sup> Annenberg School for Communication, University of Pennsylvania, Philadelphia, USA

## 1 Introduction

Ethnic minority women face a complex interplay of gender and ethnic bias. Minority women frequently find themselves objectified through a lens that perpetuates an exoticized portrayal akin to the archaic concept of the “noble savage”. An illustration of this bias was evident in the depiction of Roma women, represented in characters such as Esmeralda from Victor Hugo’s “The Hunchback of Notre-Dame” (1831), Carmen in Georges Bizet’s opera (1875), and even in recent times, the portrayal of “Gypsy” women in Jennifer Lopez’s music video of “Ain’t it Funny” (1999). These narratives cast Roma women into stereotypical roles, portraying them as simultaneously naive but seductive, affable but incompetent. This prejudice, more pervasive towards Roma women than towards Roma men, can substantially affect their integration in education and in the workforce (Cukrowska & Kóczé, 2013). Education serves as a critical pathway for social mobility, making schools pivotal arenas where biases can either be perpetuated or dismantled. In this context, teachers play a central role, as their perceptions and attitudes can significantly influence students’ academic outcomes and broader opportunities in life (Turetsky et al., 2021). Understanding how prejudice manifests in educational settings is thus essential to addressing systemic inequities. In the present research, we investigated the nature of prejudice in the education domain, specifically majority teachers’ paternalism (and hostility) towards Roma minority girls in Hungary.

### 1.1 The ethnic achievement gap

Roma people, especially Roma women, represent one of the largest and most discriminated groups in Europe, facing systemic discrimination that permeates various aspects of their lives (Cukrowska & Kóczé, 2013). Notably, in education, Roma children are disproportionately placed in special education institutions, attending schools with inadequate facilities, and navigating “de facto” segregated educational environments (FRA, 2022). This ethnic achievement gap is even more pronounced among Roma women, who spend fewer years in education, exhibit higher dropout rates, and achieve lower educational aspirations compared to both majority individuals and Roma men (Cukrowska & Kóczé, 2013).

While the ethnic achievement gap is often attributed to structural barriers such as segregation and socioeconomic factors (e.g., lack of access to cultural and educational services; Howard, 2019), psychological barriers, such as teachers’ prejudice, also play a significant role (Turetsky et al., 2021). These psychological and structural barriers are interconnected, with teachers’ biases often reinforcing existing educational inequities, even when efforts are made to address external structural factors (Spitzer & Aronson, 2015). Therefore, not only structural, but also psychological barriers (such as teachers’ prejudice) are crucial to investigate in order to fully mitigate the ethnic achievement gap.

## 1.2 Prejudice and evaluation bias of minority students

Studies have extensively examined the ethnic bias in teachers' judgments or evaluations of students' academic performance. Overall, teachers often evaluate the academic performance of ethnic minority students less favorably than that of their majority peers, even when performance levels are comparable (for reviews, see Batruch et al., 2023; Turetsky et al., 2021; Zanga & De Gioannis, 2023). However, only a handful of studies tested the direct connection between teachers' prejudicial attitudes and such evaluation bias (most frequently, tracking placement bias). The results of these studies are not straightforward—how or which type of teachers' prejudice predict biased evaluation is mixed (Batruch et al., 2023). In a German study, teachers evaluated Turkish minority students' performance more unfavorably compared to their majority peers. However, this bias was not predicted by teachers' feelings towards Turkish students (i.e., “affective prejudice”; Sprietsma, 2013). It is argued that this discrepancy may be attributed to social desirability issues, with implicit prejudice—rather than explicit prejudice—has been implicated in teachers' evaluation bias (Denessen et al., 2022; Pit-ten Cate & Glock, 2019).

On the other hand, a different study found that explicit and blatant intergroup attitudes significantly influenced evaluation bias. In this study, Hungarian preservice teachers assessed student portfolios and were more likely to recommend Roma students for lower track schools than their equally qualified majority peers (Bruneau et al., 2020). Notably, the tracking bias was not predicted by affective prejudice, but rather by blatant dehumanization. A subsequent replication study conducted in Germany with preservice teachers found contradicting results (Civitillo et al., 2022). Affective prejudice was associated with the biased tracking recommendations of Roma students, whereas inhumanization did not predict it (Civitillo et al., 2022).

## 1.3 Prejudice from an intersectional perspective

The above overviewed findings provide an unclear picture on how or which dimension of prejudice drives discrimination in education (such as tracking bias). However, the seemingly inconsistent findings may be explained through the nature of prejudice dominant in the relevant intergroup and gender context. Firstly, in prior studies the gender of the student targets was inconsistent, in some cases the profiles were of mixed gender (Bruneau et al., 2020; Sprietsma, 2013) and in other cases only of male students (Civitillo et al., 2022). Even in case of mixed gender profiles, the effect of target's gender was not tested in prior work.

Secondly, biases toward social groups are not unidimensional and are shaped by roughly two dimensions: perceived warmth—how trustworthy and sociable a group or individual is seen— and perceived competence—how capable and agentic a group or individual is perceived— (see “stereotype content model”, Fiske et al., 2002). While prior work focused predominantly on warmth-related affective prejudice (Bruneau et al., 2020; Civitillo et al., 2022; Sprietsma, 2013), it lacks focus on competence-related prejudice in predicting evaluation bias.

Accordingly, there is scarce research about the different nature of prejudice towards ethnic minority female or male students (Pit-ten Cate & Glock, 2023; Turetsky et

al., 2021). Teachers often perceive ethnic minority boys as more aggressive, disruptive, and threatening compared to their majority peers (Glock, 2016; Okonofua et al., 2016; Rucinski et al., 2024; Thiem et al., 2019; Wiemers et al., 2024). These blatant perceptions justify the focus on teachers' warmth-related prejudice and on dehumanization of the group, as it has been done in prior work (Bruneau et al., 2020; Civitillo et al., 2022; Sprietsma, 2013).

However, ethnic minority girls face different challenges due to the intersection of ethnic and gender biases (Pit-ten Cate & Glock, 2023). Research indicates that girls have often been perceived as less brilliant or inherently talented than boys (Napp & Breda, 2022). The gender bias in the educational context is particularly pronounced in STEM subjects (Schmader et al., 2023). Notably, teachers often rate female students' mathematical abilities less favorably than those of male students (Bonefeld et al., 2020, 2022; Robinson-Cimpian et al., 2014). Moreover, these gender biases are notably more severe against Black and Hispanic girls compared to their White counterparts (Copur-Gencturk et al., 2020).

Such prejudice may be attenuated when female students are considered to make up for lower intellectual abilities with hard work and conscientiousness (Turetsky et al., 2021). However, certain ethnic minority girls, such as Roma girls, may not benefit from positive gender bias given that anti-Roma bias contains negative stereotypes about laziness (Kende et al., 2020). In fact, the Roma community in Hungary were perceived the most incompetent among many groups in society, they were perceived more incompetent than (diagnosed) individuals with intellectual disability (Szekeres, 2020). Similarly, Roma students are less likely to be perceived as smart by their teachers than their non-Roma classmates with similar standardised achievement scores (Kisfalusi et al., 2023).

Overall, a critical gap exists in considering teachers' prejudice as multidimensional—beyond considering affective prejudice, whether the group is liked or disliked—when understanding its impact on discrimination, particularly from an intersectional perspective. We aimed to clarify how distinct forms of prejudice are uniquely associated with educational outcomes, contributing to a deeper understanding of the role that both competence-related and warmth-related prejudice play in perpetuating educational inequalities.

#### 1.4 Paternalism toward ethnic minority girls

To understand the nature of prejudice towards ethnic minority girls, and to go beyond perceived competence, we draw on literature on ambivalent (and benevolent) sexism. This research suggests that women may face a complex interaction of prejudice, such as paternalistic prejudice. Namely, women may be viewed as warmer and more sociable but are also seen as less competent, confident, independent, and intelligent than men, triggering a protectionist societal attitude towards women (Bareket & Fiske, 2023; Glick & Fiske, 2001a, 2018).

As ethnic minority women are sometimes also approached with paternalistic prejudice (McMahon & Kahn, 2018), young girls in school context would most likely be subjected to it as well. In the context of education, we propose that paternalistic prejudice by teachers may reflect well-intentioned efforts to provide help, meanwhile

undermining students' abilities, and inadvertently signaling to students that they are not capable of achieving success independently. Paternalism reflects teachers' perceptions that minority girls lack intelligence, talent, assertiveness, confidence, or ambition. This dynamic mirrors the tendency observed in instances where individuals perceived as lacking in competence are more inclined to receive dependency-oriented help rather than autonomy-promoting help (i.e., giving the full solution but not the tools to solve the problem independently; Wyszynski et al., 2020).

While paternalism has not been explicitly examined in the context of education, there are certain behaviors of teachers observed that has been noted and that potentially correspond to manifestations of paternalism. Such pedagogical practices may include asking simpler questions, assigning less homework, providing comfort-oriented feedback instead of critical and sophisticated feedback, or engaging students less in extracurricular educational activities (e.g., Croft & Schmader, 2012; Harber, 2012; 2019; Rattan et al., 2012).

Paternalism was not studied much in education context, likely because it operates under the guise of well-intentioned support, making it less visible as a form of discrimination (Jackman, 1994). In the current research, we aimed to establish the significance of paternalism in understanding prejudice and discrimination towards ethnic minority girls in school. We defined paternalism in the educational context not only through reduced competence perceptions, but we focused also specifically on *paternalistic educational attitude*. We consider this attitude a set of beliefs where teachers exhibit benevolent yet patronizing and indulging pedagogical manner towards minority students. We argue that regardless of the (seemingly) good intentions paternalism can unfavorably impact evaluation of academic performance of minority girls.

### 1.5 Paternalism vs. hostility and outcomes

Furthermore, in our research, we also aim to differentiate paternalistic prejudice from hostile prejudice. Drawing from the analogy of gender bias, hostile bias-like hostile sexism—refers to overtly negative attitudes, antipathy and diminished warmth toward the group (Glick & Fiske, 2001b, 2018). Unlike paternalism, hostility lacks benevolent intentions or desire to help. In the educational context, beyond reduced warmth perceptions, we define hostility as a *hostile educational attitude*, whereby teachers display negative, dismissive, or hostile behaviors toward ethnic minority students, favoring strict discipline and exclusion over support. While our primary focus is on paternalism, we suggest that teachers' hostility would also influence discrimination of minority girls, albeit differently.

We aimed to differentiate between paternalism and hostility in terms of distinguishing their impact on educational outcomes. We focused on two main outcomes: inclusion and evaluation. With inclusion, we refer to the student's access to education, that is, whether the teacher welcomes the student into their class. Indeed, school segregation practices while unconstitutional in democratic societies, "de facto" still occur (for example, by tracking minority students to separate classes from majority students), and much attention has been paid to how it can affect minority students (e.g., Jackson & Holzman, 2020; Reardon, 2016). Meanwhile, minority student may

be welcomed to class, but their performance may be still undervalued. Evaluation of students' academic performance and skills directly determines the grades and academic success of students, and this outcome has been a major focus of empirical research in the field (for review see Batruch et al., 2023).<sup>1</sup>

Given scarce research on interaction of prejudice and outcomes in the education domain towards ethnic minority girls, to formulate our predictions, we relied on previous work in the gender domain that investigates the different effect of benevolent sexism (a chivalrous view of women as pure and moral, yet weak and passive, deserving men's protection and admiration) and hostile sexism (viewing women as manipulative competitors who seek to gain power over men) in workplace bias. The findings of a systematic review suggest that both hostile and benevolent sexism undermine women's advancement in the workplace but in different ways (Bareket & Fiske, 2023).

Hostile sexism (over benevolent sexism) promotes direct bias and discrimination against women in the workplace, undermining the perceived competence of women (Christopher & Wojda, 2008; Good & Rudman, 2010; Reilly et al., 2017), and limit hiring of women to high-power positions and counterstereotypical fields (Feather & Boeckmann, 2007; Masser & Abrams, 2004; Salvaggio et al., 2009), and overall promotes a hostile and masculine work environment (Bareket & Fiske, 2023). These effects are likely exacerbated when hostility is not only based on gender, but the group in question is also a highly stigmatized outgroup. Accordingly, we predict that teachers' hostility would strongly predict inclusion, and possibly evaluation bias.

By contrast, benevolent sexism not so directly but subtly reinforces women's lower status in the workplace (over hostile sexism). First, being exposed to benevolent sexism self-handicaps women by reducing their perceived work-related interests, aspirations and competence, with the ensuing negative consequences for their performance (Dardenne et al., 2007; Dumont et al., 2010). Experiences with benevolent sexism was negatively associated with women's ambitions and performance in STEM field (Barreto et al., 2010; Kuchynka, Salomon et al., 2018; Jones et al., 2014). Second, benevolent sexism is associated with providing paternalistic support towards women in the workplace, for example, by lower assignment of challenging work experiences to women (King et al., 2012), and by offering dependency-oriented help (vs. independency-oriented; Shnabel et al., 2016).

Given these findings, and the potentially even stronger association of competence perceptions and paternalism (over benevolence bias) in the educational context, we predict that teachers' paternalism would strongly predict evaluation bias.

## 1.6 Predictions

Firstly, based on prior work on teachers' perceptions of Roma students in Hungary (Bruneau et al., 2018; Kisfalusi et al., 2023), we tested *ethnic bias* and predicted that Roma girls were perceived as significantly less competent than their majority peers. We also predicted that the ethnic bias was starker for differences in competence per-

---

<sup>1</sup> Research also focused on biased disciplinary decisions, however those primarily affected ethnic male students, therefore it was not the focus of the present research (Okonufua et al., 2016).

ceptions than in warmth perceptions— indicating the importance of paying attention to teachers' competence perceptions (sometimes over warmth) of ethnic minority girls. We also predicted that the Roma girl student's academic performance will be evaluated less favorably than that of the majority students.

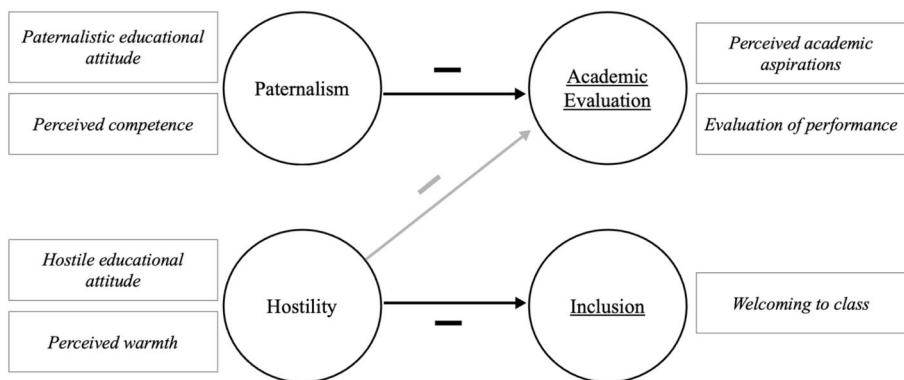
Overall, we proposed a *dual pathway of prejudice in education* (see Fig. 1) whereby teachers' competence-related paternalism towards Roma girls is associated with their evaluation bias ('cold path') while warmth-related hostility towards Roma girls is associated with their inclusiveness ('warm path'). We suggest that this dissection of the nature of prejudice towards minority girls can contribute to the broader discourse and policy making in educational integration, such as assessments and interventions.

Our specific predictions were that paternalism (measured through perceived competence and paternalistic educational attitude) and hostility (perceived warmth and hostile educational attitude) directed at Roma girls would predict unfavorable *academic evaluation* of Roma girls (perceived aspirations of Roma girls and evaluation of a Roma girl's performance)— but paternalism would be a stronger predictor than hostility.

We also hypothesized that hostility would negatively predict *inclusion* (willingness to welcome a Roma girl to one's class), and hostility's association would be stronger to inclusion than to academic evaluation. Regarding paternalism and inclusion, on the one hand, a paternalistic attitude may be associated with greater inclusion due to the desire to protect and support minority students. On the other, it may be associated with exclusion, as students are viewed as incapable of success without assistance. Due to these potential conflicting inclinations, we do not expect a clear or significant relationship between paternalism and inclusion overall.

## 2 Method

The survey, codebook, data, analyses, full result outputs and supplemental materials (SM; including a preliminary study among pre-service teachers) can be found on the project's OSF page: <https://osf.io/w3jyv/>.



**Fig. 1** The dual pathway model of prejudice in education. Note. All variables refer to Roma girls

## 2.1 Participants and procedure

Hungarian teachers ( $N=144$ ) were recruited from across the country and were asked to complete an online survey. The study was conducted in 2021–2022. Participants who responded to the attention check question incorrectly were excluded from data analyses ( $n=2$ ). No participant indicated to be Roma. Participants ( $N=142$ , ages 22–82,  $M_{\text{age}}=48.16$ ,  $SD_{\text{age}}=12.99$ , 83% women; years of teaching: 1–50,  $M=22.09$ ,  $SD=12.94$ )<sup>2</sup> were randomly assigned to one of four student profiles: Roma girl ( $n=42$ ), Roma boy ( $n=30$ ), non-Roma girl ( $n=34$ ), non-Roma boy ( $n=38$ ). IRB approval of the Research Ethics Committee (REC) of \*Anonymous University\* is 2020/226-2, 2022/496. Sensitivity power analysis is reported in SM.

## 2.2 Measures

### 2.2.1 Student portfolios, evaluation, and inclusion

Participants were informed that they will receive a student's portfolio, who is a candidate for secondary school (an 8th grader). We informed participants that they will see solutions from the student's *practice* exam for the national secondary school entrance exam. To increase credibility, we disclaimed that these profiles were provided with the consent of the parents.

Each participant received one student profile, which started with the student's short introduction, where gender and ethnicity was varied. It read: "Emilia/Geri, 8th grade, Jaszberenyi-an [town] Roma/'not specified' girl/boy". Gender was varied based on the given name, and based on whether it said girl or boy. Being 'Roma' was indicated, while being 'non-Roma' was not indicated. There were no other differences between profiles.

We chose a town (Jaszbereny), which is not characterized as typical Roma settlement, but which is characterized by lower socioeconomic status. This was done to ensure that the Roma student would not be considered as having a lower SES than the non-Roma student, to control for the target's assumed SES. Majority society often conflate certain minorities with lower SES, which could influence evaluation of the student (Glock & Kleen, 2023).

The student's introduction also included a sentence about their hobbies: "What do you like to do in your spare time?" s/he answered s/he likes to hang out with friends and digs horror movies." This was added to decrease suspicion and include more information about the student than just their gender or ethnicity.

Next was the student's solutions to questions from the national exam, one to a short essay question for 'Hungarian Language and Grammar' subject, and one to a question for 'Mathematics' subject. The responses were written by an actual 8th grader with mid-level ambiguous performance (following the method of aversive racism; Dovidio & Gaertner, 2000), and the math solution showed was handwritten.

<sup>2</sup> Among the participants (with overlaps), 49% have experience teaching in elementary school, 50% in high school, 30% in vocational school, 5% in domination school, and 6% in private schools. Geographically, 49% are teaching or have taught in the capital city, 37% in towns, and 12% in villages.

**Evaluation** For *evaluation*, we asked participants to provide their track recommendation, to rate the student and how other teachers would rate them (Batruch et al., 2019, 2023), and to estimate their test scores and grade average (6 items,  $\alpha=0.77$ ). Participants' responses to evaluation and inclusion questions were POMS (Percentage of Maximum Score) transferred to values from 0 to 1, where higher scores denoted more positive evaluations of the student. For full scales see *Appendix* (following References).

**Inclusion** For *inclusion*, we asked if they mind if the student in the profile joins their class (1 item). Participants' responses were POMS transferred to the value from 0 to 1, where higher score denoted more inclusion of the student. For full scale see *Appendix* (following References).

Following the profile, participants responded to the following measures below on aspirations, stereotypes and attitudes, for full scales see *Appendix*.

### 2.2.2 Perceived academic aspirations

The scale was created for the current research purposes, and it was loosely based on a scale measuring teacher expectation (Regalla, 2013). The scale asked about participants' agreement (on 5-point scale) to whether Roma girls have academic efficacy, motivation, ambition, and place value on education (14 statements,  $\alpha=0.97$ ).

### 2.2.3 Competence and warmth perceptions (with difference scores)

We adopted the stereotype content model scale (Fiske et al., 2002) into two slider questions (from 0 to 100) on perceived competence and on warmth in a fashion like a 'feeling thermometer' (Norton & Herek, 2013). Similarly to applications of the feeling thermometer (e.g., Kteily et al., 2015), a difference score was calculated for each stereotype dimension separately. Roma girl scores were subtracted from majority girl scores, resulting in scales where higher scores denoted higher perceived competence / warmth for majority girls compared to Roma girls, thus higher score meant higher negative bias towards Roma girls.

### 2.2.4 Paternalistic and hostile educational attitude

The paternalistic and hostile scale was developed by us based on the theorizing of ambivalent sexism (Glick & Fiske, 2001b), and paternalistic-like teaching behaviors (Turetsky et al., 2021). We created statements that reflect these attitudes and fit the educational context. We asked participants the extent they agree to approach Roma girls with the proposed pedagogical manners (on a 5-point scale). For paternalistic scale (7 items,  $\alpha=0.76$ ), we asked about willingness to avoid challenging Roma students to protect them from failure, to separate Roma from majority students for this purpose, and implied that Roma students don't always know what's good for them. For the hostile scale (4 items,  $\alpha=0.77$ ), we asked about agreement to blatant emotions towards Roma students, willingness to physically segregate them, and to use

“firm” discipline towards them. (Educational attitudes were not asked for majority students, as the equivalent phrasing of statements would have been awkward.) Factor analyses is reported in SM.

### 3 Results

#### 3.1 Preliminary analyses

For descriptive statistics and correlations see Table 1; Fig. 2. We found that *perceived aspirations* significantly correlated with warmth, hostile attitude, competence and paternalistic attitude. *Evaluation of the Roma girl* negatively and significantly correlated with paternalism (both with competence and paternalistic attitude), while *inclusion of the Roma girl* with hostility (both with warmth and hostile attitude). Additionally, with regression analyses (performed with Structural Equation Modeling using “lavaan” code; see Table 2) we found that competence predicted paternalistic attitude over warmth, and warmth predicted hostile attitude over competence.

#### 3.2 Ethnic bias

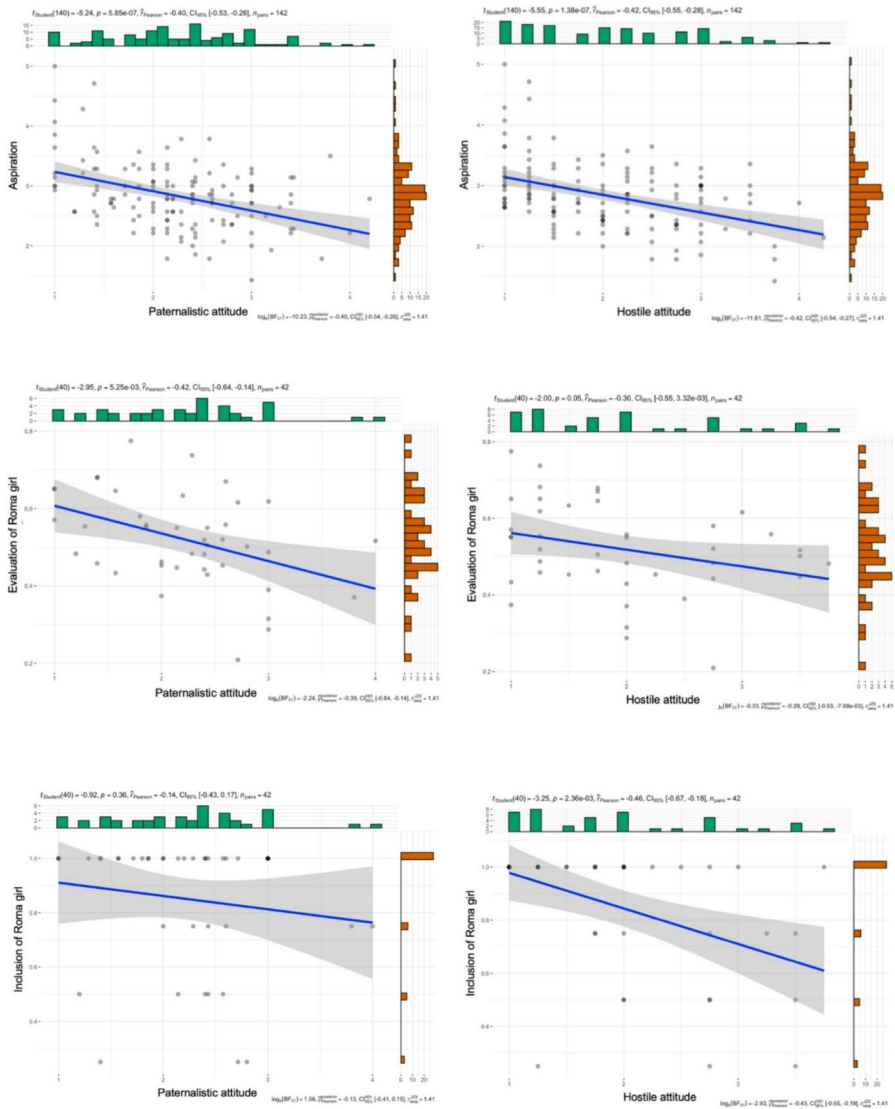
We conducted between-subjects ANOVA with one factor and 4-levels (Roma girls, Roma boys, non-Roma girls, non-Roma boys) because our aim was to compare evaluation of Roma girl to other profiles. We found no significant contrast effects on *evaluation* ( $p$ 's > 0.09) or *inclusion* ( $p$ 's > 0.22), see Fig. 3. (Note, with exploratory analyses, we found a significant effect on one item and a moderation effect on the scale, both suggesting that the Roma girl may be evaluated less favorably than majority students, see SM.)

On *competence and warmth stereotypes*, we conducted repeated measures ANOVA (also with 4-levels). We found that Roma girls were evaluated less competent than majority girls and boys (but not significantly different than Roma boys). Roma girls were perceived significantly less warm than majority boys or girls (but warmer than Roma boys). For statistical values see Table 3a-3b and Fig. 4. We also found that the

**Table 1** Descriptive statistics and Pearson's correlation between study variables

Variables	M	SD	1	2	3	4	5	6
1. Warmth	7.47	15.41	-					
2. Competence	15.07	16.41	0.47**	-				
3. Hostile	2.05	0.82	0.48**	0.27**	-			
4. Paternalistic	2.24	0.70	0.22**	0.27**	0.43**	-		
5. Aspirations	2.84	0.56	-0.24**	-0.38**	-0.43**	-0.41**	-	
6. Evaluation (profile)	0.52	0.12	-0.27	-0.36*	-0.30	-0.42**	0.44**	-
7. Inclusion (profile)	0.85	0.24	-0.46**	-0.12	-0.46**	-0.14	0.37	0.41**

Note. \* $p < .05$ , \*\* $p < .01$ . Competence and Warmth variables are difference scores. Higher scores denote higher bias towards Roma girls (vs. majority girls)



**Fig. 2** Correlations (zero-order) between educational attitudes and educational outcomes

difference on perceived competence between Roma girls and majority girls was significantly greater than the difference on warmth,  $F(1,141) = 30.33$ ,  $p < .001$ ,  $\eta_p^2 = 0.18$ .

### 3.3 Dual pathway model: cold and warm path of prejudice

Given that we suggested that paternalism and hostility are composed of a stereotype (diminished perceived competence and warmth, respectively) and an educational attitude (paternalistic and hostile, respectively), we conducted a Structural Equation Model (SEM) with latent variables, including variables that refer to Roma girls.

**Table 2** Regression coefficients of path model (SEM) of all observed variables

Predictor	Outcome	Estimate	Std. Error	z-value	p	95% CI	
						Lower	Upper
Competence	Paternalistic	0.219	0.091	2.418	0.016	0.042	0.397
Warmth	Paternalistic	0.117	0.091	1.295	0.195	-0.060	0.295
Competence	Hostile	0.054	0.083	0.647	0.518	-0.109	0.216
Warmth	Hostile	0.458	0.083	5.514	< 0.001	0.295	0.620
Competence	Aspiration	-0.274	0.081	-3.383	< 0.001	-0.433	-0.115
Warmth	Aspiration	0.075	0.088	0.850	0.395	-0.097	0.247
Paternalistic	Aspiration	-0.219	0.079	-2.759	0.006	-0.375	-0.064
Hostile	Aspiration	-0.293	0.087	-3.367	< 0.001	-0.463	-0.122
Competence	Evaluation (profile)	-0.129	0.151	-0.858	0.391	-0.425	0.166
Warmth	Evaluation (profile)	-0.067	0.163	-0.412	0.681	-0.387	0.252
Paternalistic	Evaluation (profile)	-0.400	0.148	-2.707	0.007	-0.689	-0.110
Hostile	Evaluation (profile)	-0.033	0.161	-0.205	0.837	-0.349	0.283
Competence	Inclusion (profile)	0.161	0.142	1.127	0.260	-0.119	0.440
Warmth	Inclusion (profile)	-0.305	0.154	-1.976	0.048	-0.607	-0.003
Paternalistic	Inclusion (profile)	-0.002	0.140	-0.014	0.989	-0.276	0.272
Hostile	Inclusion (profile)	-0.416	0.153	-2.728	0.006	-0.716	-0.117

Note. Competence and Warmth variables are difference scores. Higher scores denote higher bias towards Roma girls (vs. majority girls)

“Paternalism” composed of competence perceptions and paternalistic attitude, and “hostility” composed of warm perceptions and hostile attitude, and they were the predictors. Latent variable of “academic evaluation” was composed of aspiration of Roma girls and evaluation of the Roma girl. (Note, while the educational attitudes, perceived warmth and competence, and aspirations were asked from the entire sample [ $n=142$ ], the evaluation of the Roma girl was only asked from a randomized sub-group of the sample [ $n=42$ ]).<sup>3</sup> Academic evaluation and inclusion (individual, not latent) were entered as outcome variables.

We found that the model had good fit ( $\chi^2(7, 142)=5.57, p<.001, T\text{-size CFI}=0.92$  [“fair”; CFI=1.00],  $TLI=1.02, T\text{-size RMSEA}=0.09$  [“close”; RMSEA=0.00],  $SRMR=0.04$ ). Given the low sample size and that standard RMSEA produced unrealistically low values, we used equivalence testing instead of conventional null hypothesis testing (see Yuan et al., 2016). Accordingly, we reported T-size RMSEA and T-size CFI.<sup>4</sup> Factor loadings were significant ( $p$ 's<0.001; see SM for exact factor loadings). We predicted that both hostility and paternalism would predict academic evaluation, but paternalism would be stronger. We found support for the “cold path”, that paternalism predicted academic evaluations, but hostility was not significant. While we planned to, we did not perform coefficient comparison analyses to test this prediction, as such analyses would be redundant given the clear distinction between significant and non-significant effects in the paths of interest. Supporting the “warm path” prediction, hostility predicted inclusion, but paternalism did not. See Table 4 for coefficients.

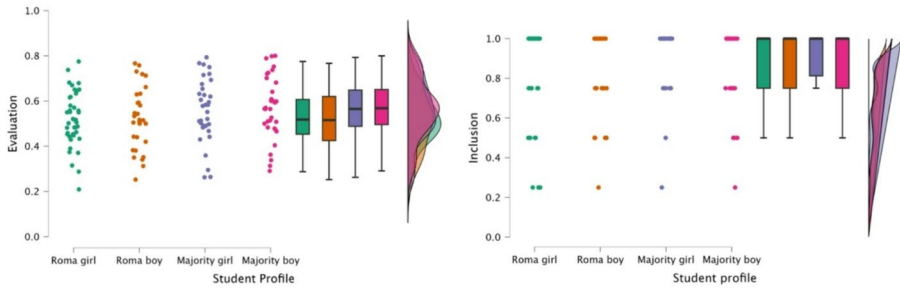
We performed post-hoc power analysis for the SEM model with latent variables (using *semPower* in R with the following parameters: effect=0.09, effect-measure=RMSEA, alpha=0.05,  $N=142, df=7, p=4$ ). The empirically achieved power was 0.501, indicating that the study was underpowered.

## 4 Discussion

The present research tested teachers' paternalistic prejudice towards Roma minority girls in Hungary, distinguishing it from hostile prejudice to uncover its unique associations with educational outcomes. We proposed and tested a dual pathway of prejudice among teachers, and as predicted, we found that paternalism was more strongly associated with negative academic evaluations of Roma girls (cold path) and hostility was more strongly associated with reduced inclusiveness towards a Roma girl (warm path).

<sup>3</sup> The estimation method used to handle the missing values is FIML (Full Information Maximum Likelihood) which is appropriate for MCAR (Missing Completely at Random), in which missingness is *unrelated* to participants' responses or characteristics. This method includes the responses from the sub-group for the additional items and incorporate them into our model. This method allows us to utilize the data that we have from the entire sample, even though some items are missing for the majority.

<sup>4</sup> T-size indices are generated with the SEM analysis, see output in SM. The T-size equivalents of the conventional RMSEA cut-off values (close<0.05<fair<0.08<poor) are close<0.122<fair<0.147<poor. The T-size equivalents of the conventional CFI cut-off values (poor<0.90<fair<0.95<close) are poor<0.765<fair<0.851<close.



**Fig. 3** Effect of student profiles on evaluation and on inclusion

**Table 3a** Descriptive statistics of perceived warmth and competence of groups

	Mean	SD
<b>Warmth</b>		
Roma girls	56.55	18.49
Roma boys	52.11	19.89
Majority girls	64.01	16.63
Majority boys	61.90	17.82
<b>Competence</b>		
Roma girls	50.92	17.62
Roma boys	49.79	18.55
Majority girls	65.99	14.59
Majority boys	65.63	14.46

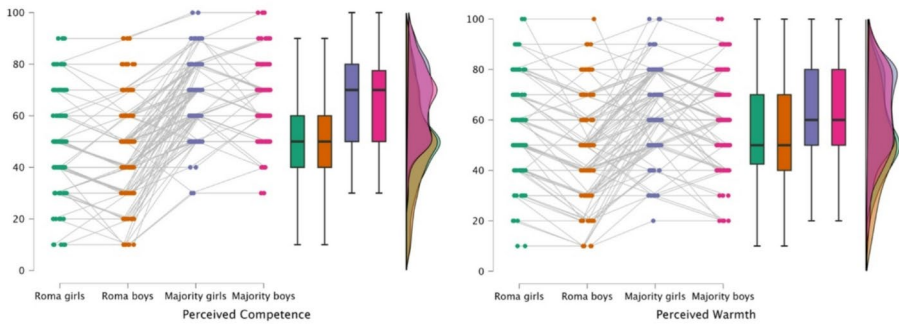
**Table 3b** Repeated measures ANOVA contrast tests for perceived warmth and competence (df= 141)

		t	p
<b>Warmth</b>			
Roma girls	vs. Roma boys	-6.01	<0.001
	vs. Majority girls	5.77	<0.001
	vs. Majority boys	4.38	<0.001
<b>Competence</b>			
Roma girls	vs. Roma boys	-1.93	0.056
	vs. Majority girls	10.95	<0.001
	vs. Majority boys	10.10	<0.001

Note. Mauchly’s sphericity test was violated. Greenhouse-Geisser is reported, and equal variances are not assumed for contrast tests. Overall ANOVA for Warmth:  $F(1.84,259.09)=42.98, p<.001, \eta^2_p=0.23$ ; Overall ANOVA for Competence:  $F(1.33,187.60)=102.86, p<.001, \eta^2_p=0.42$

### 4.1 Theoretical and applied implications

The finding that paternalistic educational attitudes alone was uniquely and negatively associated with biased evaluations suggests that even *seemingly* benevolent intentions towards minority girls may attract negative academic outcomes. Meanwhile, perceived warmth had the weakest association with biased evaluations. Namely, contrary to predictions, hostility measures were not significantly associated with



**Fig. 4** Perceived competence and warmth of groups

**Table 4** Regression coefficients of SEM latent model

Regression coefficients						95% CI	
Predictor	Outcome	Estimate	Std. error	z-value	<i>p</i>	Lower	Upper
Paternalism	Inclusion	0.763	0.688	1.110	0.267	-0.585	2.112
Hostility	Inclusion	-1.549	0.516	-3.001	0.003	-2.561	-0.538
Paternalism	Academic	-1.520	0.655	-2.322	0.020	-2.804	-0.237
Hostility	Academic	0.078	0.405	0.192	0.848	-0.717	0.872

Note. The total sample size is 142. However, there are “missing values” in the evaluation component related to Paternalism, which was only completed by a randomized sub-group ( $n=42$ ). See more information in the main text

evaluation bias (only with perceived aspirations). Overall, results suggest that while hostility-related prejudice play an undeniably substantial role in various educational outcomes, paternalism-related prejudice is also a significant factor to consider, especially in academic evaluations of minority girls.

This research aimed to make several theoretical contributions to the understanding of prejudice in education. We introduced a dual-pathway model of prejudice, distinguishing between paternalistic (competence-related) and hostile (warmth-related) attitudes in teachers toward ethnic minority students, particularly Roma girls. This offers a more nuanced understanding of how different forms of prejudice operate, moving beyond the traditional focus on affective prejudice and hostility (Bruneau et al., 2020; Civitillo et al., 2022; Sprietsma, 2013) to include subtler, yet still damaging forms of prejudice like paternalism. This work emphasizes that paternalism in the educational context is a distinct and often overlooked form of prejudice (Jackman, 1994). While traditionally seen as a benevolent bias (Bareket & Fiske, 2023), our research shows that paternalism can lead to negative academic evaluations by reinforcing beliefs that minority students are less capable and dependent. This extends the theory of ambivalent sexism to the educational domain, particularly in how it impacts ethnic minority girls.

Our study highlights how gender intersects with ethnic bias, particularly the unique challenges faced by ethnic minority girls in schools. This intersectional perspective is relatively underexplored (Pit-ten Cate & Glock, 2023; Turetsky et al., 2021), and

our work aimed to bring attention to how paternalistic and hostile attitudes manifest for minority girls. Finally, the research builds on the stereotype content model by applying the dimensions of competence and warmth specifically to educational discrimination (Fiske et al., 2002). We argue that paternalism is more closely linked to competence-related perceptions, whereas hostility is tied to warmth-related biases. This theoretical expansion contributes to understanding how these two dimensions influence different educational outcomes.

By focusing on paternalism, the current work aims to contribute to the broader discourse and policy work on prejudice and discrimination in educational integration. By this focus on the nature of prejudice, we aim to contribute to the development of more effective prejudice-reduction interventions for stakeholders. Within education policy, both monitoring of discrimination, and anti-discrimination programs focus on dimensions of warmth. For example, it is common practice to assess students' sense of belonging or being liked (OECD, 2015, 2022). It is also a common approach to focus on decreasing affective dimensions of prejudice, such as with "sensitivity" trainings among educators (e.g., Aguiar et al., 2019; OECD, 2010), or to aim to promote teachers' positive relationships towards students from minority backgrounds (OECD, 2019). Similarly, social psychological prejudice-reduction interventions neglect to address perceived competence or paternalism (for review see Szekeres, 2020). We argue that beyond increasing benevolence, sympathy, or positive emotions toward a group, our work shows that establishing a group as capable, competent, and intelligent is vital for that group's educational and professional integration in society.

## 4.2 Limitations and future directions

Contrary to our predictions, we did not find differential evaluation of Roma girl students compared to majority students.<sup>5</sup> Some previous research also found no ethnic bias on evaluation of students (e.g., Boone & Van Houtte, 2013; Campbell, 2015; Riegle-Crumb & Humphries, 2012; Timmermans et al., 2016). Additionally, it is possible that the Roma girl was subtyped or perceived as a counterstereotypical exemplar. While the student profile was designed for ambiguous and mid-level performance, it was perhaps perceived as still higher than expected for a Roma student, rendering more favorable evaluation than they would otherwise receive. This is likely because Roma people are perceived very incompetent in society (Szekeres, 2020), and teachers tend to perceive Roma students as less smart than non-Roma students (Kisfalusi et al., 2023).

A notable limitation of the present study was the use of hypothetical student profiles, which might not fully capture the complexity of real-world teacher-student interactions. Although profiles allow for controlled experimental conditions and have been used frequently in prior work (for review see Batruch et al., 2023), they lack the dynamic elements of everyday classroom settings where non-verbal cues, ongoing interactions, and broader school environments also play a role in shaping teachers' evaluations (Turetsky et al., 2021). Despite this limitation, our findings are consistent with prior literature on ethnic discrimination against

<sup>5</sup> Apart from findings mentioned in the footnote (2) and reported in SM.

Roma students, which has documented patterns of bias and stereotypes affecting academic evaluations (Bruneau et al., 2020; Civitillo et al., 2022). However, the ecological validity of studies using profiles may be limited, and future research should aim to replicate these findings in more naturalistic settings, such as observational studies. This would provide a more comprehensive understanding of how these biases manifest in daily educational practices.

Nevertheless, we clearly found ethnic bias in this research, as we found a stark difference in participants' perception of Roma girls as less warm and less competent compared to majority boys and girls. This indicated participants' willingness to explicitly endorse stereotypes about Roma girls. We also found that this ethnic bias for girls is steeper for perceptions of competence than of warmth, highlighting the importance of focusing on reducing competence-related prejudice rather than (only) perceived warmth.

Based on the theorizing of paternalism (Glick & Fiske, 2001b), one might expect paternalistic attitude to be positively associated with perceived warmth of Roma girls; however results suggest the opposite (significant) relationship. The paternalistic attitude, which we construed, is perhaps not a straightforward mixture of high warmth–low competence stereotypes, but “the whole is greater (or in this case, different) than the sum of its parts”. However, future research is needed to further clarify the construct of paternalistic prejudice in education.

In this research, we did not focus on prejudice towards Roma boys, but through exploratory analyses (reported in SM), we found that neither perceived competence nor warmth predicted evaluation of the Roma boy (or his inclusion). This calls for further investigation on the intersectional nature of prejudice towards minorities. Previous work also found that evaluation of minority boys and girls differ, but findings are unclear about these patterns (Glock & Klapproth, 2017; Pit-ten Cate & Glock, 2023). Further research should focus on Roma boys, who may be more affected by morality perceptions (e.g., honesty and trustworthiness), which is another relevant dimension of stereotypes to consider (Brambilla et al., 2013; Leach et al., 2007).

Finally, the study is constrained by a significant limitation: it is underpowered. While we initially aimed to recruit a substantially larger sample size, our efforts over two years fell short of these goals. This shortfall can be attributed to several challenging factors, including the pervasive stigma surrounding the topic of prejudice toward Roma students, as well as the exceedingly unfavorable working conditions and heavy workload faced by teachers in Hungary. These societal and political circumstances posed considerable obstacles to securing sufficient survey responses.

### 4.3 Conclusion

This research underscores the importance of recognizing and addressing paternalism as a distinct and impactful form of prejudice in the educational domain, particularly affecting ethnic minority girls. By shifting the focus from overt hostility to more subtle but still undermining forms of prejudice, we argue that educators and policymakers can better foster equal opportunities in learning environments.

For example, by introducing a focus on paternalism in teachers' multicultural training. Finally, the situation of Roma communities is one of Europe's biggest democratic deficits, and educational exclusion specifically is a central concern in the European Union (Rorke & Usein, 2015). The present research aimed to raise attention to this issue and provide further insight for this challenging situation.

## 5 Appendix

### A. Evaluation– student profile.

Based on the information available and your first impressions, answer the following questions about the above student.

1. What do you think her/his score was in the Hungarian language central exam? (*from 0 to 50*)
2. What do you think her/his score was in the Mathematics central exam? (*from 0 to 50*)
3. Overall, how do you rate the student? (*1 = fail, 2 = pass, 3 = satisfactory, 4 = good, 5 = excellent*)<sup>6</sup>
4. How do you think most teachers would rate the student? (*1 = fail, 2 = pass, 3 = satisfactory, 4 = good, 5 = excellent*)
5. What was the student's average at the end of Year 7? (you can give a decimal value): \_\_\_\_.
6. Which secondary education would be the most suitable for him/her?
  - a. "High school (incl. baccalaureate, pathway to higher education)" (highest outcome, value '3'),
  - b. "Vocational school (gives both a school leaving certificate and a vocational qualification)" (moderate, value '2'),
  - c. "Technical school (vocational qualification, but no compulsory school-leaving certificate)" (least, value '1').

### B. Inclusion– student profile.

What would you say if the student was in your class?

5 = I wouldn't mind that at all.

4 = I would rather not mind.

3 = I would both mind and would not mind.

<sup>6</sup> This is also the Hungarian national grading system.

2=I would rather not like.

1=I would not like at all.

### C. Perceived competence and warmth

#### *Perceived competence*

To what extent do you think that the average member of the following groups has the following characteristics: competent, talented, intelligent.

0 = not at all characteristic, 100 = completely characteristic.

- Roma girl students.
- Roma boy students.
- Majority boy students.
- Majority girl students.
- (+ Filler groups: Jewish, Transylvanian, Eastern-Asian, Middle Eastern)

#### *Perceived warmth.*

“To what extent do you think that the average member of the following groups has the following characteristics: warm, sympathetic/relatable, good-natured/benevolent”.<sup>7</sup>

0 = not at all characteristic, 100 = completely characteristic.

- Roma girl students.
- Roma boy students.
- Majority boy students.
- Majority girl students.
- (+ Filler groups were: Jewish, Transylvanian, Eastern-Asian, Middle Eastern)

### D. Paternalistic and hostile educational attitude

To what extent do you agree with the following statements, given the average members of the following group: *ROMA GIRL STUDENTS*. (On this page, some of the statements may be perceived as harsh, but they constitute public discourse, and we are interested in your private opinions and ideas.)

5-point Likert scale from 1 = strongly disagree to 5 = strongly agree.

#### *Paternalistic.*

<sup>7</sup> “/” indicates words that had both meaning in Hungarian.

1. Roma students should be given easier tasks so that they can feel a sense of accomplishment.
2. When difficult materials come up, I think it's a good idea to divide Roma and non-Roma students so that the Roma students' self-esteem does not suffer.
3. It's important not to give Roma kids work that is too challenging for their level.
4. Even if Roma students oppose a task in class, the teacher should nevertheless go through with it, because Roma students don't always know what's good for them.
5. I think it's important to discourage Roma students from entering national competitions (unless they are exceptional) because failure would be too hard on them.
6. It is not worth pointing out minor mistakes in the performance of Roma students not to discourage them from learning.
7. It is better to avoid calling upon Roma students for an oral quiz, so that they will not feel ashamed in front of the class.

### ***Hostile***

1. Roma students are rightly put in separate classes or schools because they set back the progress of other students.
2. Roma students in school can mostly be tempered and controlled by strict discipline [firm hand].
3. Teachers' contempt for Roma students is rather understandable.
4. As a teacher, I don't like dealing with Roma students so much.

### **E. Perceived academic aspiration**

To what extent do you think that the following statements are typical of the average member of the following group: *ROMA GIRL STUDENTS*.

(Likert scale from 1 = not typical at all to 5 = completely typical)

1. Ability to master the material taught in class.
2. Has the skills to succeed in school.
3. Motivated to do her best.
4. Works hard to do her best.
5. Requires a higher degree of tutorial guidance than non-Roma peers. (r)
6. Needs more help in learning than non-roman peer. (r)
7. Able to complete secondary school.
8. Able to enter an institution of higher education.
9. Learning is important to her.
10. She values knowledge.
11. Likes to learn.
12. Plans to go on to higher education.
13. Does not have a professional vision. (r)
14. No long-term career plans. (r)

**Funding** This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under the Marie Skłodowska-Curie grant agreement no. 101106034.

**Data availability** The data that support the findings of this study are openly available at (anonymized for peer review): <https://osf.io/w3jyv/>.

## Declarations

**Conflict of interest** There is no conflict of interest.

## References

- Aguiar, C., Silva, C. S., Guerra, R., Rodrigues, R. B., Ribeiro, L. A., Pastori, G., & ISOTIS Research Team. (2020). Early interventions tackling inequalities experienced by immigrant, low-income, and Roma children in 8 European countries: A critical overview. *European Early Childhood Education Research Journal*, 28(1), 58–76. <https://doi.org/10.1080/1350293X.2020.1707363>
- Bareket, O., & Fiske, S. T. (2023). A systematic review of ambivalent sexism: Hostile sexism guards Men's power; benevolent sexism protects traditional gender roles. *Psychological Bulletin*, 149(11–12), 637–698.
- Barreto, M., Ellemers, N., & Palacios, M. S. (2010). The burden of benevolent sexism: How it contributes to the maintenance of gender inequalities. *European Journal of Social Psychology*, 40(5), 1–14. <https://doi.org/10.1002/ejsp.270>
- Batruch, A., Autin, F., Bataillard, F., & Butera, F. (2019). School selection and the social class divide: How tracking contributes to the reproduction of inequalities. *Personality and Social Psychology Bulletin*, 45(3), 477–490. <https://doi.org/10.1177/0146167218791804>
- Batruch, A., Geven, S., Kessenich, E., & van de Werfhorst, H. G. (2023). Are tracking recommendations biased? A review of teachers' role in the creation of inequalities in tracking decisions. *Teaching and Teacher Education*, 123, 103985. <https://doi.org/10.1016/j.tate.2022.103985>
- Bonefeld, M., Dickhäuser, O., & Karst, K. (2020). Do pre-service teachers' judgments and judgment accuracy depend on students' characteristics? The effect of gender and immigration background. *Social Psychology of Education*, 23(1), 189–216. <https://doi.org/10.1007/s11218-019-09533-2>
- Bonefeld, M., Kleen, H., & Glock, S. (2022). The effect of the interplay of gender and ethnicity on teachers' judgements: Does the school subject matter? *Journal of Experimental Education*, 90(4), 818–838. <https://doi.org/10.1080/00220973.2021.1878991>
- Boone, S., & Van Houtte, M. (2013). Why are teacher recommendations at the transition from primary to secondary education socially biased? A mixed- methods research. *British Journal of Sociology of Education*, 34(1), 20–38. <https://doi.org/10.1080/01425692.2012.704720>
- Brambilla, M., Sacchi, S., Pagliaro, S., & Ellemers, N. (2013). Morality and intergroup relations: Threats to safety and group image predict the desire to interact with outgroup and ingroup members. *Journal of Experimental Social Psychology*, 49(5), 811–821. <https://doi.org/10.1016/j.jesp.2013.04.005>
- Bruneau, E., Szekeres, H., Kteily, N., Tropp, L. R., & Kende, A. (2020). Beyond dislike: Blatant dehumanization predicts teacher discrimination. *Group Processes & Intergroup Relations*, 23(4), 560–577. <https://doi.org/10.1177/1368430219845462>
- Campbell, T. (2015). Stereotyped at seven? Biases in teacher judgement of pupils' ability and attainment. *Journal of Social Policy*, 44(3), 517–547. <https://doi.org/10.1017/S0047279415000227>
- Christopher, A. N., & Wojda, M. R. (2008). Social dominance orientation, authoritarianism, and prejudice toward women in the workforce. *Psychology of Women Quarterly*, 32(1), 65–73. <https://doi.org/10.1111/j.1471-6402.2007.00407.x>
- Civitillo, S., Ialuna, F., Lieck, D., & Jugert, P. (2022). Do infrahumanization or affective prejudice drive teacher discrimination against Romani students? A conceptual replication of Bruneau et al. (2020) in Germany. *Peace and Conflict: Journal of Peace Psychology*, 28(3), 340–344. <https://doi.org/10.1037/pac0000609>
- Copur-Gencturk, Y., Cimpian, J. R., Lubienski, S. T., & Thacker, I. (2020). Teachers' Bias against the mathematical ability of female, black, and Hispanic students. *Educational Researcher*, 49(1), 30–43. <https://doi.org/10.3102/0013189X19890577>

- Croft, A., & Schmader, T. (2012). The feedback withholding bias: Minority students do not receive critical feedback from evaluators concerned about appearing racist. *Journal of Experimental Social Psychology*, 48(5), 1139–1144. <https://doi.org/10.1016/j.jesp.2012.04.010>
- Cukrowska, E., & Kóczé, A. (2013). Interplay between gender and ethnicity: Exposing Structural Disparities of Romani women. *Analysis of the UNDP/World Bank/EC regional Roma survey data. Bratislava: UNDP, Europe and the CIS Bratislava Regional Centre.*
- Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women's performance. *Journal of Personality and Social Psychology*, 93(2), 164–181.
- Denessen, E., Hornstra, L., van den Bergh, L., & Bijlstra, G. (2022). Implicit measures of teachers' attitudes and stereotypes, and their effects on teacher practice and student outcomes: A review. *Learning and Instruction*, 78, 101437. <https://doi.org/10.1016/j.learninstruc.2020.101437>
- Dovidio, J. F., & Gaertner, S. L. (2000). Aversive racism and selection decisions: 1989 and 1999. *Psychological Science*, 11(4), 315–319. <https://doi.org/10.1111/1467-9280.00262>
- Dumont, M., Sarlet, M., & Dardenne, B. (2010). Be too kind to a woman, she'll feel incompetent: Benevolent sexism shifts self-construal and autobiographical memories toward incompetence. *Sex Roles*, 62(7–8), 545–553. <https://doi.org/10.1007/s11199-008-9582-4>
- Feather, N. T., & Boeckmann, R. J. (2007). Beliefs about gender discrimination in the workplace in the context of affirmative action: Effects of gender and ambivalent attitudes in an Australian sample. *Sex Roles*, 57(1), 31–42. <https://doi.org/10.1007/s11199-007-9226-0>
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902. <https://doi.org/10.1037/0022-3514.82.6.878>
- FRA/European Union Agency for Fundamental Rights (2022). Roma in 10 European countries, Roma survey 2021– Main results. Publications Office of the European Union. <https://fra.europa.eu/en/publication/2022/roma-survey-2021-main-results>
- Glick, P., & Fiske, S. T. (2001a). An ambivalent alliance: Hostile and benevolent sexism as complementary justifications for gender inequality. *American Psychologist*, 56(2), 109–118. <https://doi.org/10.1037/0003-066X.56.2.109>
- Glick, P., & Fiske, S. T. (2001b). Ambivalent stereotypes as legitimizing ideologies: Differentiating paternalistic and envious prejudice. *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations*, 278–306.
- Glick, P., & Fiske, S. T. (2018). The ambivalent sexism inventory: Differentiating hostile and benevolent sexism. *Social cognition* (pp. 116–160). Routledge.
- Glock, S. (2016). Stop talking out of turn: The influence of students' gender and ethnicity on preservice teachers' intervention strategies for student misbehavior. *Teaching and Teacher Education*, 56, 106–114. <https://doi.org/10.1016/j.tate.2016.02.012>
- Glock, S., & Klapproth, F. (2017). Bad boys, good girls? Implicit and explicit attitudes toward ethnic minority students among elementary and secondary school teachers. *Studies in Educational Evaluation*, 53, 77–86. <https://doi.org/10.1016/j.stueduc.2017.04.002>
- Good, J. J., & Rudman, L. A. (2010). When female applicants Meet sexist interviewers: The costs of being a target of benevolent sexism. *Sex Roles*, 62(7–8), 481–493. <https://doi.org/10.1007/s11199-009-9685-6>
- Harber, K. D., Gorman, J. L., Gengaro, F. P., Butisingh, S., Tsang, W., & Ouellette, R. (2012). Students' race and teachers' social support affect the positive feedback bias in public schools. *Journal of Educational Psychology*, 104(4), 1149. <https://doi.org/10.1037/a0028110>
- Harber, K. D., Reeves, S., Gorman, J. L., Williams, C. H., Malin, J., & Pennebaker, J. W. (2019). The conflicted Language of interracial feedback. *Journal of Educational Psychology*, 111(7), 1220.
- Howard, T. C. (2019). *Why race and culture matter in schools: Closing the achievement gap in America's classrooms*. Teachers College.
- Jackman, M. R. (1994). *The Velvet glove: Paternalism and conflict in gender, class, and race relations*. Univ of California.
- Jackson, M. (2020a). B. Holzman (Ed.), A century of educational inequality in the united States. *Proceedings of the National Academy of Sciences* 117 32 19108–19115 <https://doi.org/10.1073/pnas.1907258117>
- Jackson, M. (2020b). B. Holzman (Ed.), A century of educational inequality in the united States. *Proc Natl Acad Sci U S A* 117 19108–19115.
- Jones, K. P., & King, E. B. (2014). Managing concealable stigmas at work: A review and multilevel model. *Journal of Management*, 40(5), 1466–1494. <https://doi.org/10.1177/0149206313515518>

- Kende, A., Hadarics, M., Bigazzi, S., Boza, M., Kunst, J. R., Lantos, N. A., Lášticová, B., Minescu, A., Pivetti, M., & Urbiola, A. (2020). The last acceptable prejudice in Europe? Anti-Gypsyism as the obstacle to Roma inclusion. *Group Processes & Intergroup Relations*, 24(3), 388–410. <https://doi.org/10.1177/1368430220907701>
- King, E. B., Botsford, W., Hebl, M. R., Kazama, S., Dawson, J. F., & Perkins, A. (2012). Benevolent sexism at work: Gender differences in the distribution of challenging developmental experiences. *Journal of Management*, 38(6), 1835–1866. <https://doi.org/10.1177/0149206310365902>
- Kisfalusi, D. (2023). Are equally competent Roma-minority students perceived as less smart than their non-Roma classmates? Ethnic differences in teachers' ability attributions. *Journal for Multicultural Education*, 17(4), 443–457.
- Kteily, N., Bruneau, E., Waytz, A., & Cotterill, S. (2015). The ascent of man: Theoretical and empirical evidence for blatant dehumanization. *Journal of Personality and Social Psychology*, 109(5), 901–931. <https://doi.org/10.1037/pspp0000048>
- Kuchynka, S., Salomon, K., & Bosson, J. K. (2018). Hostile and benevolent sexism and college women's STEM experiences. *Psychology of Women Quarterly*, 42(1), 72–87. <https://doi.org/10.1177/0361684317741889>
- Leach, C. W., Ellemers, N., & Barreto, M. (2007). Group virtue: The importance of morality (vs. Competence and sociability) in the positive evaluation of in-groups. *Journal of Personality and Social Psychology*, 93(2), 234–249. <https://doi.org/10.1037/0022-3514.93.2.234>
- Masser, B., & Abrams, D. (2004). Reinforcing the glass ceiling: The consequences of hostile sexism for female managerial candidates. *Sex Roles*, 51(9–10), 609–615. <https://doi.org/10.1007/s11199-004-5470-8>
- McMahon, J. M., & Kahn, K. B. (2018). When sexism leads to racism: Threat, protecting women, and Racial bias. *Sex Roles*, 78, 591–605. <https://doi.org/10.1007/s11199-017-0828-x>
- Napp, C., & Breda, T. (2022). The stereotype that girls lack talent: A worldwide investigation. *Science Advances*, 8(10), eabm3689. <https://doi.org/10.1126/sciadv.abm3689>
- Norton, A. T., & Herek, G. M. (2013). Heterosexuals' attitudes toward transgender people: Findings from a National probability sample of U.S. Adults. *Sex Roles*, 68, 738–753. <https://doi.org/10.1007/s11199-011-0110-6>
- OECD. (2010). *Educating teachers for diversity: Meeting the challenge, educational research and innovation*. OECD Publishing. <https://doi.org/10.1787/9789264079731-en>
- OECD. (2015). *Immigrant students at school: Easing the journey towards integration, OECD reviews of migrant education*. OECD Publishing. <https://doi.org/10.1787/9789264249509-en>
- OECD. (2019). *TALIS 2018 results (Volume I): Teachers and school leaders as lifelong learners*. TALIS, OECD Publishing. <https://doi.org/10.1787/1d0bc92a-en>
- OECD (2022). Computer-based student questionnaire for PISA 2022 main survey version. Retrieved from: [https://read.oecd-ilibrary.org/education/immigrant-students-at-school\\_9789264249509-en#page36](https://read.oecd-ilibrary.org/education/immigrant-students-at-school_9789264249509-en#page36)
- Okonofua, J. A., et al. (2016). A vicious cycle: A social– psychological account of extreme Racial disparities in school discipline. *Perspect Psychol Sci*, 11, 381–398.
- Pit-ten Cate, I. M., & Glock, S. (2019). Teachers' implicit attitudes toward students from different social groups: A meta-analysis. *Frontiers in Psychology*, 10, 2832. <https://doi.org/10.3389/fpsyg.2019.02832>
- Pit-ten Cate, I. M., & Glock, S. (2023). *A systematic review on teachers' stereotypical beliefs and expectations*. The Routledge International Handbook of Gender Beliefs, Stereotype Threat, and Teacher Expectations.
- Rattan, A., Good, C., & Dweck, C. S. (2012). It's ok—Not everyone can be good at math: Instructors with an entity theory comfort (and demotivate) students. *Journal of Experimental Social Psychology*, 48(3), 731–737. <https://doi.org/10.1016/j.jesp.2011.12.012>
- Reardon, S. F. (2016). School segregation and Racial academic achievement gaps. *RSF: the Russell Sage Foundation Journal of the Social Sciences*, 2(5), 34–57.
- Regalla, M. (2013). Teacher expectations and students from low socioeconomic background: A perspective from Costa Rica. <http://eric.ed.gov/?id=ED540254>
- Reilly, E. D., Rackley, K. R., & Awad, G. H. (2017). Perceptions of male and female STEM aptitude: The moderating effect of benevolent and hostile sexism. *Journal of Career Development*, 44(2), 159–173. <https://doi.org/10.1177/0894845316641514>
- Riegle-Crumb, C., & Humphries, M. (2012). Exploring bias in math teachers' perceptions of students' ability by gender and race/ethnicity. *Gender and Society*, 26(2), 290–322. <https://doi.org/10.1177/0891243211434614>

- Robinson-Cimpian, J. P., Lubinski, S. T., Ganley, C. M., & Copur-Gencturk, Y. (2014). Teachers' perceptions of students' mathematics proficiency May exacerbate early gender gaps in achievement. *Developmental Psychology, 50*(4), 1262–1281. <https://doi.org/10.1037/a0035073>
- Rorke, B., & Usein, O. (Eds.). (2015). *A lost decade?? Reflections on Roma inclusion 2005–2015*. Decade of Roma Inclusion Secretariat Foundation.
- Rucinski, C. L., Mandalaywala, T. M., & Tropp, L. R. (2024). Escalation effects in teacher perceptions of classroom behavior in a US context: The intersecting roles of student race, gender, and behavior severity. *Social Psychology of Education, 27*(3), 813–832. <https://doi.org/10.1007/s11218-023-09822-x>
- Salvaggio, A. N., Streich, M., & Hopper, J. E. (2009). Ambivalent sexism and applicant evaluations: Effects on ambiguous applicants. *Sex Roles, 61*, 621–633.
- Schmader, T. (2023). Gender inclusion and fit in STEM. *Annual Review of Psychology, 74*(1), 219–243. <https://doi.org/10.1146/annurev-psych-032720-043052>
- Shnabel, N., Bar-Anan, Y., Kende, A., Bareket, O., & Lazar, Y. (2016). Help to perpetuate traditional gender roles: Benevolent sexism increases engagement in dependency-oriented cross-gender helping. *Journal of Personality and Social Psychology, 110*(1), 55–75. <https://doi.org/10.1037/pspi0000037>
- Spitzer, B., & Aronson, J. (2015). Minding and mending the Gap: Social psychological interventions to reduce educational disparities. *British Journal of Educational Psychology, 85*(1), 1–18. <https://doi.org/10.1111/bjep.12067>
- Sprietsma, M. (2013). Discrimination in grading: Experimental evidence from primary school teachers. *Empirical Economics, 45*(1), 523–538. <https://doi.org/10.1007/s00181-012-0609-x>
- Szekeres, H. (2020). Kedvelni Vagy Tisztelni?? Az Előítételek Csökkentése a Melegszívűség És kompetencia Dimenzióiban. *Alkalmazott Pszichológia, 20*(4), 15–49. <https://doi.org/10.17627/alkPszich.2020.4.15>
- Thiem, K. C., Neel, R., Simpson, A. J., & Todd, A. R. (2019). Are black women and girls associated with danger? Implicit Racial bias at the intersection of target age and gender. *Personality and Social Psychology Bulletin, 45*(10), 1427–1439. <https://doi.org/10.1177/0146167219829182>
- Timmermans, A. C., Kuyper, H., & Werf, G. (2015). Accurate, inaccurate, or biased teacher expectations: Do Dutch teachers differ in their expectations at the end of primary education? *British Journal of Educational Psychology, 85*(4), 459–478. <https://doi.org/10.1111/bjep.12087>
- Turetsky, K. M., Sinclair, S., Starck, J. G., & Shelton, J. N. (2021). Beyond students: How teacher psychology shapes educational inequality. *Trends in Cognitive Sciences, 25*(8), 697–709. <https://doi.org/10.1016/j.tics.2021.04.006>
- Wiemers, S. A., Stasio, V. D., & Veit, S. (2024). Stereotypes about Muslims in the Netherlands: An intersectional approach. *Social Psychology Quarterly, 01902725231219688*. <https://doi.org/10.1177/01902725231219688>
- Wyszynski, M. C., Guerra, R., & Bierwaczzonek, K. (2020). Good refugees, bad migrants? Intergroup helping orientations toward refugees, migrants, and economic migrants in Germany. *Journal of Applied Social Psychology, 50*(10), 607–618. <https://doi.org/10.1111/jasp.12699>
- Yuan, K. H., Chan, W., Marcoulides, G. A., & Bentler, P. M. (2016). Assessing structural equation models by equivalence testing with adjusted fit indexes. *Structural Equation Modeling: A Multidisciplinary Journal, 23*(3), 319–330. <https://doi.org/10.1080/10705511.2015.1065414>
- Zanga, G., & De Gioannis, E. (2023). Discrimination in grading: A scoping review of studies on teachers' discrimination in school. *Studies in Educational Evaluation, 78*, 101284. <https://doi.org/10.1016/j.stueduc.2023.101284>

**Publisher's note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

**Hanna Szekeres** Dr. Hanna Szekeres is a postdoctoral researcher at the Department of Social Psychology, University of Amsterdam, The Netherlands. Her research interests broadly cover intergroup relations, conflict resolution, prejudice reduction, and collective action.

**Emile Bruneau** Dr. Emile Bruneau was research associate and lecturer at the Annenberg School for Communication in University of Pennsylvania in the U.S., and lead scientist at the Beyond Conflict Innovation Lab. His research interests broadly covered social neuroscience, intergroup relations, intergroup conflict, and conflict resolution.

---

**Bertjan Doosje** Dr. Bertjan Doosje, Associate Professor at the Department of Social Psychology, University of Amsterdam, The Netherlands. His research interests broadly cover intergroup relations and culture, including perceived discrimination, collective action, acculturation and intercultural romantic relationships.