

Beyond dislike: Blatant dehumanization predicts teacher discrimination

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Abstract

School teachers have been shown to favor ethnic majority over minority students. However, it is unclear what psychological processes motivate ethnicity-based discrimination. Of the studies that have examined the psychological roots of teacher discrimination, most have focused on implicit or explicit prejudice. We propose an alternate predictor: dehumanization. Using a within-subject paradigm with a small-scale experiment ($N = 29$) and a larger scale replication ($N = 161$), we find that Hungarian preservice teachers consistently discriminate against Roma minority students by recommending that they be denied entry to higher track secondary schools, and preferentially placing them into lower track schools, relative to equally qualified ethnic majority Hungarian students, and that the severity of the ethnic tracking bias is predicted by dehumanization (but not prejudice). In fact, the relationship between dehumanization and discrimination holds (and may be significantly *stronger*) for teachers who express the lowest levels of prejudice towards the Roma.

Keywords

dehumanization, discrimination, education, prejudice, student, teacher

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Educational systems around the world espouse the ideals of meritocracy. Yet teachers systematically discriminate based on ethnicity. For example, American teachers evaluate Hispanic students less positively than IQ-matched White students (McCombs & Gay, 1988); provide top Black students less praise, less direct questions, and less feedback after mistakes than non-Black peers (Casteel, 1998; Ferguson, 2003), or provide different forms of feedback and praise for the same work (Harber, 1998); and discipline Black students more severely than White students for equivalent offenses (Horner, Fireman, & Wang,

2010; Okonofua & Eberhardt, 2015). In Europe, students' ethnic minority status influences the judgments of preservice teachers (i.e., teachers in

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training) about student competence (Glock & Krolak-Schwerdt, 2013), and shapes decisions to place migrant students into lower track secondary schools, regardless of students' prior academic achievement (Klapproth, Glock, Böhmer, Krolak-Schwerdt, & Martin, 2012). Similar results have been observed in India, where essays ostensibly belonging to lower caste students are graded approximately 10% lower than the same essays associated with high-caste students (Hanna & Linden, 2012). One marginalized group towards whom hostility is particularly high in European educational systems is the Roma population.

The Roma are Europe's largest minority group, and have been subject to discrimination for over a millennium. In educational settings today, there is ample evidence of widespread structural discrimination towards Roma children in schools, particularly in Eastern and Central European countries, including Hungary (see e.g., Cahn et al., 1998; O'Nions, 2010; Ringold, 2000). For example, Roma children are overrepresented in special education institutions (Kende & Neményi, 2006) and study in schools with worse facilities and less qualified teachers (Kertesi & Kézdi, 2010). Despite a legal ban on segregating children on the basis of ethnicity in Hungary, a high percentage of Roma children study in segregated schools (Greenberg, 2010; Kertesi & Kézdi, 2013).

Although there is considerable evidence that Roma students face discrimination in educational contexts (see also Pietsch & Stubbe, 2007), much less is known about the underlying psychological processes that drive this discrimination. One obvious candidate driver of such discrimination is anti-Roma prejudice among teachers. For at least the past half century, prejudice has been a major focus of intergroup research, and prejudice reduction has been the primary target of interventions aimed at improving intergroup relations (Stephan & Stephan, 2001; Tropp & Pettigrew, 2005). The aspect of prejudice most consistently implicated in discrimination is its affective dimension (Schütz & Six, 1996; Talaska, Fiske, & Chaiken, 2008). For example, negative behaviors toward racial and ethnic minority

groups, and the desire to cut funding to student organizations serving these groups, are both predicted by ratings of affective prejudice towards the target groups using standard feeling thermometer measures (Rudman & Ashmore, 2007).

Still, only a handful of studies have examined the association between prejudice among teachers and discrimination experienced by their students. In one study, German teachers were sent 10 essays written by German elementary school students; several of the essays (chosen at random) were presented to the teachers paired with Turkish names, and the other essays were paired with stereotypical German names. Teachers provided ratings of the essays, and their recommendations for the educational track into which the students should be placed. At the end of the study, teachers provided feeling thermometer ratings on a range of social groups (including Turks and Germans), ostensibly as part of a separate study. Results from this study showed that German teachers gave essays associated with Turkish names significantly lower grades; they were also more likely to recommend students with Turkish names for the lowest educational track, and less likely to recommend students with Turkish names for the highest educational track (Sprietsma, 2013). Interestingly, however, this study found that the bias in tracking recommendations was not predicted by teachers' reported prejudice toward Turks. The authors suggested that the lack of association between prejudice and tracking bias may have been because the psychological processes driving teacher discrimination are implicit and unconscious, particularly in a society with strong political correctness norms, like Germany. In line with this view, studies from the Netherlands (van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010) and New Zealand (Peterson, Rubie-Davies, Osborne, & Sibley, 2016) suggest that teachers' implicit prejudice—but not explicit prejudice—may be associated with lower levels of academic achievement among ethnic minority students.

However, it is also possible that teacher discrimination may be due to a psychological process other than prejudice. How we treat members of other groups is not only a function of how we *feel*

about them, but also how we *evaluate* them. Particularly for teachers, educational decisions—how to respond to students' questions, what comments to put on their papers, which classes to encourage them to take—could be as much a function of their beliefs about the capabilities of certain groups of students as it is about their feelings toward the groups to which students belong (Harber, 1998; Yeager et al., 2014). One evaluative dimension that we expect to be particularly relevant to educational discrimination is the degree to which a student's group is dehumanized.

Dehumanization

Our modern theoretical understanding of dehumanization emerged largely through the consideration of colonization, slavery, genocide, and war (Bandura, Underwood, & Fromson, 1975; Bartal, 1990; Kelman, 1973). These theoretical perspectives argue that dehumanizing a target group removes moral prohibitions against harming them, thus enabling large-scale violence. In support of this theoretical work, empirical research has illustrated that dehumanization has important and unique consequences in modern antagonistic intergroup contexts (for review, see Kteily & Bruneau, 2017b). For example, the degree to which American, British, and Hungarian people view outgroups as less “evolved and civilized” than their own predicts a host of outcomes, including lower donations to needy outgroup members, resistance to outgroup immigration, and support for aggression (Bruneau, Kteily, & Laustsen, 2018; Kteily, Bruneau, Waytz, & Cotterill, 2015; see also Maoz & McCauley, 2008).

At the same time, dehumanization is also thought to form the foundation of more patronizing forms of discrimination. For instance, Europeans throughout the colonial period depicted native populations not only in aggressive animalistic terms, but also in infantilizing, child-like terms, portraying them as naïve, simple, and undisciplined (Jahoda, 2013)—perceptions that endowed a feeling of responsibility for their welfare even as their rights were curtailed. Consistent with this perspective, Saminaden,

Loughnan, and Haslam (2010) have empirically demonstrated that, in contrast to individuals from modern, industrialized societies, indigenous and aboriginal people are often implicitly likened *both* to animals and to children, even in the absence of explicit prejudice. Along similar lines, patronizing views of women in the absence of prejudice (or even with an abundance of warmth; i.e., “benevolent sexism”) have been shown to drive support for harmful policies against them (Glick & Fiske, 1996; Glick et al., 2000). Dehumanization could therefore plausibly drive discrimination even in the absence of overt antagonism or hostility.

As with assessments of prejudice, dehumanization has been measured as both a blatantly held belief (Kteily & Bruneau, 2017b) and as a more subtle and potentially unconscious association with specified groups (Haslam & Stratemeyer, 2016). One of the most common ways in which subtle dehumanization has been assessed is in terms of “infracommunication” (Leyens et al., 2000). Infracommunication describes the tendency to preferentially attribute complex, human-specific emotions (i.e., secondary emotions such as love and humiliation, contrasted with primary emotions, like pleasure and fear, shared with other animals) to members of one's own group relative to devalued outgroups. The subtlety of this measure stems from the fact that people are not explicitly asked to evaluate the humanity of the outgroup, and are indeed unaware of the fact that their pattern of attribution of secondary emotions is being taken as an indirect measure of (de)humanization.

By contrast, blatant measures of dehumanization typically ask respondents to explicitly report how “evolved and civilized” they consider a number of target groups to be, for example by placing them along the spectrum of the popular “ascent of (hu)man” diagram (Kteily et al., 2015). Notably, blatant dehumanization scores correlate strongly with attributions of a wide range of traits (see Bastian & Haslam, 2010; Haslam, 2006), including both traits with overtly antagonistic attributions (e.g., “barbaric,” “aggressive,” and “immoral”) and also traits that indicate a perception of inferior capabilities (and which may

serve as a basis for paternalistic concern), such as a perceived lack of cognitive capacity (e.g., “irrational,” “unsophisticated,” “(un)scholarly”; Kteily et al., 2015, Table 14).

One reason why dehumanization, in particular, may be a strong predictor of teacher discrimination against students from marginalized groups is that dehumanization is theoretically strongly associated with essentialism—the belief that groups belong to distinct kinds (Haslam, 2006; Leyens et al., 2000). If students are seen as *essentially* lacking higher order cognitive capacities associated with full humanity (and scholarship), teachers may hold the belief that there is no amount of teaching that can allow a student to reach a high level of educational attainment. In this case, placing a student from a group that is thought to fundamentally lack the capacity for high-level reasoning into an educational track that is above their “natural capacity” would be doing them a disservice. Importantly, this essentialist reasoning could drive behavior regardless of how a teacher might affectively feel about the student or that student’s group.

If dehumanization is the predicted psychological driver of teacher discrimination, an additional question is, what type of dehumanization? Namely, is it more likely that teacher discrimination is driven by subtle/implicit dehumanization, or by blatant dehumanization? On the one hand, previous work in educational contexts suggests that more subtle or implicit measures of prejudice may be better predictors of teacher discrimination than overt measures (Peterson et al., 2016; van den Bergh et al., 2010). Following this logic, one might reason that inhumanization would be a stronger predictor of discrimination than blatant dehumanization in educational settings. However, there are a few reasons why we predict that blatant dehumanization is likely to be the stronger predictor of teacher discrimination in Hungary. First, our theoretical prediction outlined before suggests that teacher discrimination against minority students is likely driven by forms of dehumanization that reflect perceived group inferiority. Whereas subtle dehumanization is assessed indirectly and can occur outside of

conscious awareness, blatant dehumanization directly captures consciously endorsed perceptions of group inferiority. Those who knowingly believe in the view that the Roma lack higher order cognitive capacities should be especially likely to place them into lower tracks. Second, in a range of other contexts, and towards a host of target groups, we have found that blatant dehumanization is a stronger predictor than subtle dehumanization of even subtle outcomes (e.g., denying an equally qualified minority vs. majority judge a position as a federal judge; Kteily et al., 2015; for a review, see Kteily & Bruneau, 2017b).

It is also worth noting the context within which we examine our predictions. Prior work suggesting the greater utility of subtle or implicit prejudice for predicting teacher discrimination (Peterson et al., 2016; van den Bergh et al., 2010) occurred in cultural contexts with strong political correctness norms that may dampen people’s willingness to report explicit bias (e.g., New Zealand, the Netherlands). In contrast, over the past several years, Hungary’s political leadership has explicitly promoted anti-Roma rhetoric (e.g., calling the Roma “animals” in a published editorial and suggesting a “solution” by “any means”; Bayer, 2015). Consistent with the idea that blatant attitudes may be more acceptable in Hungary, previous research indicates that levels of blatant dehumanization of the Roma among the Hungarian population are quite high (Bruneau, Kteily, et al., 2018; Kteily et al., 2015), and comparable to the levels of dehumanization that exist between groups that are involved in active warfare (e.g., Israelis and Palestinians; Bruneau & Kteily, 2017). Given the greater willingness to honestly express blatant attitudes in Hungary, we thought it likely that it would be a better predictor of behavior than in contexts where expressing overt attitudes is counternormative (and where subtle or implicit metrics may therefore be more predictive).

Current Research

Based on the reasoning outlined before, we had several hypotheses. First, we predicted that Hungarian teachers would display ethnic

discrimination in tracking decisions, selectively denying minority Roma students access to higher educational tracks and favoring their placement into the lowest educational track (H1). Further, we predicted that tracking discrimination would be predicted by blatant dehumanization (H2), and that this would be true even when controlling for subtle dehumanization and prejudice (H3). Indeed, given that blatant dehumanization involves perceptions of inferiority that can occur even without affective hostility (e.g., perceiving another group as lacking in higher order cognitive capacities like self-control), we reasoned that blatant dehumanization might predict teacher discrimination even in those teachers who expressed low levels of affective prejudice (H4). To our knowledge, this is the first study to examine the role of dehumanization (and dehumanization vs. prejudice) in teacher discrimination.

The primary question of the current research was to determine the psychological processes that drive teacher tracking bias. Since discrimination against the Roma in Hungary is widespread, and dehumanization of the Roma by the population is high (Kteily et al., 2015, Study 4), we felt that it was an ideal context in which to test whether dehumanization and discrimination are associated. Before examining this question, we first sought in a pilot study to establish the existence of educational tracking bias among our cohort of Hungarian preservice teachers. Participants in the pilot study were Hungarian preservice teachers assigned to read a single eight-grade student's profile and rate how appropriate they thought three different educational tracks were for that student. The same educational profile was presented to each participant, but for half of the preservice teachers the profile was associated with a typically Roma name, whereas for the other half it was associated with a typically non-Roma name. This paradigm allowed us to determine whether (and to what degree) Hungarian preservice teachers discriminate against Roma students. The placement of students into different educational tracks in the Hungarian school system has long-term implications, with a high track (standard secondary school) and a middle

track (technical secondary school) offering individuals the opportunity to further their education, and a low track (vocational school) that officially disqualifies graduates from taking college entrance exams, thus severely limiting future job opportunities and social mobility (Kertesi & Kézdi, 2013). Tracking bias therefore provides a mechanism through which to maintain a race-based dominance hierarchy in Hungarian society.

The 103 Hungarian preservice teachers ($M_{\text{age}} = 21.46$, $SD = 2.09$; 81 females) who completed this pilot study were provided with a single-page profile of a purportedly real Hungarian eight-grade student (14 years old), with either a typically non-Roma name or a typically Roma name at the top. Participants rated the appropriateness of each of three academic tracks for the student. We examined the student placement data with a 2 (target group: Roma, non-Roma) \times 3 (school track: low, middle, high) mixed ANOVA, with school track as a within-subjects factor. We found the predicted significant Target Group \times School Track interaction, $F(2, 202) = 7.56$, $p = .001$, $\eta^2 = .07$, which was driven by a significantly greater endorsement of the low track for the Roma versus non-Roma student (Roma: $M = 7.78$, $SD = 1.92$; non-Roma: $M = 6.64$, $SD = 2.35$); $t(101) = 2.71$, $p = .008$, and a significantly lower endorsement of the middle track for the Roma student versus non-Roma student (Roma: $M = 6.59$, $SD = 1.76$; non-Roma: $M = 7.62$, $SD = 1.82$); $t(101) = 2.92$, $p = .004$. The pilot study therefore demonstrated that preservice teachers discriminate against Roma (vs. non-Roma) students by preferentially recommending that they be placed into the lowest track secondary schools (and thereby denied the opportunity to continue on to postsecondary education).

Having established that preservice teachers discriminate against Roma students in our student tracking paradigm, we sought in Studies 1a and 1b to examine the psychological mechanism(s) behind this discrimination. We did this by measuring preservice teachers' levels of Roma dehumanization and prejudice at the beginning of the term, and then measuring these same participants' ethnicity-based tracking discrimination using a within-subjects version of the student

placement task, completed several weeks later. The student placement task was conceptually similar to within-subjects experiments with teachers conducted in Germany (Sprietsma, 2013) and India (Hanna & Linden, 2012).

Study 1a

In Study 1a, we sought to better understand the psychological mechanisms behind teacher discrimination of Roma students. In order to examine this directly, we had preservice teachers report their levels of Roma dehumanization and prejudice at the beginning of the term, and then obtained individual measures of ethnicity-based tracking discrimination from these same participants using a within-subjects version of the student placement task, which was ostensibly part of a different research project offered approximately 6 weeks later. This allowed us to compare individual variability in ratings of prejudice and dehumanization with variability in the tendency to discriminate against Roma students.

Method

Participants. Participants were a new group of preservice teachers recruited from the same graduate program as the pilot study. We recruited as many participants as we could within the time constraints (second half of one semester). Data were analyzed only after data collection had been terminated. Of the 53 preservice teachers who completed the survey and passed the attention check items (questions embedded in the survey that requested a specific response, e.g., “Mark Option 5”), 29 successfully completed an online student placement task 6 weeks later¹ (20 females; $M_{\text{age}} = 21.6$ years).² Data were analyzed only after data collection had been terminated. Participants were compensated 3,500 Hungarian Forints (~\$12 USD) for each portion of the study.

Measures. Students completed an omnibus survey in the middle of the semester. Here, we report the measures of particular interest to the current study: blatant dehumanization (ascent dehumanization),

subtle dehumanization (infracumanization), and the affective component of prejudice (feeling thermometer). For the full list of survey items, see the supplemental material.

Prejudice. Affective prejudice was assessed with feeling thermometers (Haddock, Zanna, & Esses, 1993). Participants rated how warm or cold they felt towards “people from Budapest” (97% non-Roma Hungarian population) and Roma people, as well as toward a number of other filler groups (e.g., French, Slovakian). We used “people from Budapest” as an ingroup proxy (rather than a more specific ingroup, such as “non-Roma Hungarians”) to downplay the Roma versus non-Roma comparison and limit demand characteristics of the study.³ Responses were made using continuous, unmarked slider bars anchored at 0 (*very cold/unfavorable*) and 100 (*very warm/favorable*). Prejudice was computed as the difference in warmth felt towards people from Budapest and the Roma.

Blatant dehumanization. Blatant dehumanization was assessed using the Ascent of (Hu)Man Measure of Blatant Dehumanization (Kteily et al., 2015). Participants were provided with an image of the popular “Ascent of Man” diagram, with sliders beneath associated with each of the groups assessed on the feeling thermometer (see Kteily et al., 2015; see Figure 1). Blatant dehumanization was computed as the difference in “evolvedness” between people from Budapest and the Roma.

Subtle dehumanization. Infracumanization (Leyens et al., 2000) was assessed as in Kteily et al. (2015), by providing participants with positive and negative primary emotions (excitement, pleasure, happiness; pain, fear, anger) and six positive and negative secondary emotions (compassion, optimism, hope; bitterness, contempt, guilt). Participants were asked to “Indicate with the sliders how typical each of the emotions are [the Roma/Hungarians],” using unmarked sliders anchored at 0 (*not at all typical*) and 100 (*very typical*). Primary and secondary emotions were intermixed, and presentation order was randomized

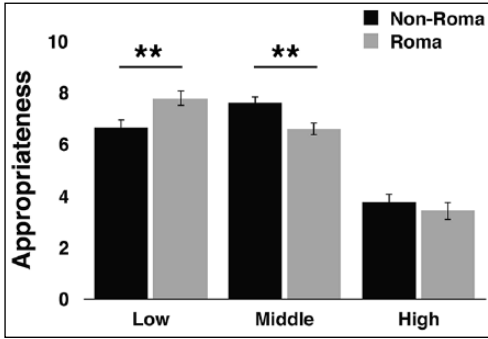


Figure 1. Appropriateness ratings by school track for the Roma versus non-Roma student profiles; ratings made only for a Roma or non-Roma target (pilot study). Note that low track (i.e., technical school) students are not eligible to complete college entrance exams, and are therefore excluded from postsecondary education. $**p < .01$.

across participants. We computed the difference between average ratings for Hungarians versus the Roma on secondary emotions, with positive scores indicating more attribution of secondary emotions to Hungarians. To isolate the effect of differential attribution of secondary emotions per se (as opposed to attributing greater emotionality to the ingroup in general), we regressed this variable on differential attribution of primary emotions. Note that Tables 1 and 3 present the unresidualized mean, and all zero-order correlations and regression analyses use the residualized variable (Tables 1–4).

Student profiles. Participants were then provided with 22 student profiles, each of which presented the student’s scores on two competence tests (mathematics and reading comprehension; on 0–100% scales) and five subject tests (mathematics, Hungarian, English, history, physics; on 1–5 scales; for sample profile, see the supplemental material). In all, there were 12 objectively average profiles with non-Roma Hungarian names (six male, six female), and six objectively average profiles with Roma names (three male, three female), and filler profiles to provide heterogeneity: two strong profiles with non-Roma Hungarian names (one male, one female),

Table 1. Descriptive statistics and variable intercorrelations for Study 1a.

	1	2	3	4
1. Blatant dehumanization	–			
2. Subtle dehumanization	.35	–		
3. Prejudice	.46*	.23	–	
4. Behavior: biased tracking	.43*	–.07	.19	–
<i>M</i>	21.52***	5.63*	41.34***	.393
<i>SD</i>	23.47	10.15	30.22	15.83

Note. All measures represent relative values (favoring non-Roma over Roma); residualized infrahumanization (subtle dehumanization) used for correlation analysis, nonresidualized mean value presented. Asterisks for the mean values reflect one-sample *t* tests comparing values to zero. $***p < .001$. $**p < .005$. $*p < .05$.

Table 2. Multiple regression predicting discrimination as a function of dehumanization and prejudice in Study 1a.

	Tracking discrimination $R^2 = .18$			
	<i>B</i>	95% CI <i>B</i>	β	<i>p</i>
Blatant dehumanization	.35	[0.06, 0.63]	.52	.018
Subtle dehumanization	–.40	[–0.99, 0.19]	–.26	.173
Prejudice	.00	[–0.21, 0.22]	.01	.957

and two weak profiles with non-Roma Hungarian names (one male, one female). Because Roma in Hungary constitute only 10% of the population, we included fewer Roma than non-Roma profiles in order to enhance believability and minimize suspicion about the actual goals of the study. Critically, the objective strengths of profiles were designed to be similar for the average Roma and non-Roma profiles: when test scores for each target were normed to 0–100 scales and then averaged across profiles, the mean profile rating was similar for the Roma students ($M = 47.10$, $SD = 3.59$) and the non-Roma students ($M = 49.70$, $SD = 4.42$); $t(16) = 1.20$, $p = .24$. Overall, the weak, medium, and strong profiles

Table 3. Descriptive statistics and variable intercorrelations for Study 1b.

	1	2	3	4
1. Blatant dehumanization	–			
2. Subtle dehumanization	.27***	–		
3. Prejudice	.52***	.23***	–	
4. Behavior: biased tracking	.23**	.08	.14	–
<i>M</i>	19.25***	2.85***	37.72***	5.71***
<i>SD</i>	24.63	12.33	31.08	15.38

Note. All measures represent relative values (favoring non-Roma over Roma); residualized infrahumanization (subtle dehumanization) used for correlation analysis, nonresidualized mean value presented. Asterisks for the mean values reflect one-sample *t* tests comparing values to zero.

****p* < .001. ***p* < .005. **p* < .05.

Table 4. Multiple regression predicting discrimination as a function of dehumanization and prejudice in Study 1b.

	Tracking discrimination <i>R</i> ² = .06			
	<i>B</i>	95% CI	β	<i>P</i>
Blatant dehumanization	.13	[0.02, 0.24]	.22	.019
Subtle dehumanization	.04	[−0.17, 0.24]	.03	.725
Prejudice	.01	[−0.08, 0.10]	.02	.795

elicited the expected endorsements for each of the three educational tracks (Figure S1A). In order to match the profiles across groups, we did not include sample essays in the profiles (as we had done in the pilot study).

Procedure

Hungarian preservice teachers completed an omnibus survey that included the dehumanization and prejudice measures in the middle of the term. Approximately 6 weeks later, we gave the preservice teachers who had completed the survey the opportunity to participate in an ostensibly unrelated study, run by a different research assistant. Those who agreed to the second study were told that the goal of the research was to examine the effects of online learning “by creating a virtual classroom where teachers are going to

interact with classes of pupils online.” We then asked participants to prepare for this study by having them “place the students into the type of schooling that they believe is the most appropriate for them based on their school performance,” and showed them the 22 student profiles, presented in random order.

Similar to the pilot study, for each student profile, participants rated how appropriate three different educational tracks were for that student: technical school (low track), vocational secondary school (middle track), and standard secondary school (high track). Responses were made using continuous slider bars anchored at 0 (*not at all appropriate*) and 100 (*very appropriate*).

Results

Preliminary analyses. Descriptive statistics and intercorrelations of all variables are presented in Table 1. Since we used as our outcome measure the educational tracking tendencies towards non-Roma versus Roma students, we use the difference in dehumanization and prejudice reported towards non-Roma versus Roma as our predictor variables. However, we also report results when dehumanization and prejudice towards the Roma (alone) were used instead. Consistent with a community sample of Hungarians (Kteily et al., 2015, Study 4), we found that the preservice teachers examined in Study 1a showed significant levels of blatant dehumanization, subtle dehumanization, and prejudice toward the Roma (all *ps* < .01).

Primary analyses. Of primary interest in Study 1a was testing how strongly dehumanization and prejudice were associated with levels of discrimination in student tracking. First, to determine if preservice teachers showed overall discrimination against Roma students in the within-subjects student placement task, we used a 2 (target group: Roma, non-Roma) \times 3 (school track: low, middle, high) within-subjects ANOVA. As with the pilot study, we observed no main effect of target group, $F(1, 28) = 0.15, p = .70$, but a main effect of school track, $F(2, 56) = 22.50, p < .001, \eta^2 = .45$, with students generally being rated as best suited for the middle educational track ($M = 70.28, SD = 15.74$), as compared to ratings of their suitability for either the low track ($M = 42.16, SD = 26.38$); $t(28) = 4.95, p < .001$, or the high track ($M = 35.57, SD = 19.39$); $t(28) = 8.11, p < .001$. Critically, and consistent with the pilot study, the main effect of school track was qualified by the expected Target Group \times School Track interaction, $F(2, 56) = 3.46, p = .038, \eta^2 = .11$. Planned paired-samples t tests revealed that the preservice teachers judged Roma students to be marginally better suited than non-Roma students for the low track (Roma: $M = 43.98, SD = 27.26$; non-Roma: $M = 40.33, SD = 26.44$); $t(28) = 1.96, p = .06$, marginally less well suited than non-Roma students for the high track (Roma: $M = 34.22, SD = 19.33$; non-Roma: $M = 36.93, SD = 20.30$); $t(28) = 1.77, p = .09$, and equally suited for the middle track (Roma: $M = 69.45, SD = 15.21$; non-Roma: $M = 71.11, SD = 17.13$); $t(28) = 1.17, p = .25$.

To obtain a single measure of discrimination for each participant, we averaged the tendency to favor placing Roma over non-Roma in the low educational track with the tendency to favor placing non-Roma over Roma in the high track ($r = .52, p < .001$), and used this as a “discrimination score.” We then regressed this discrimination score on blatant dehumanization, subtle dehumanization, and prejudice to determine how well each psychological factor predicted discrimination, controlling for the others. We found that discrimination was uniquely and significantly predicted by blatant dehumanization, but not by prejudice or subtle dehumanization (see Table 2).⁴

Discussion

Study 1a replicated the results of the pilot study using a within-subjects experimental paradigm, showing that Hungarian preservice teachers tended to discriminate against Roma students by rating them as more appropriate for entry to technical school, and less appropriate for entry into high school, relative to equally qualified non-Roma students. The pattern of placement responses in Study 1a (minority students recommended more for low track, less for high track, and equal for middle track) mirrors results from a similar within-subjects student placement study in Germany (Sprietsma, 2013). Most importantly, Study 1a illustrated that bias in the educational tracking of Roma versus non-Roma students was predicted by blatant dehumanization (measured at least 1 month prior), controlling for affective prejudice and subtle dehumanization.

Although these results are supportive of our hypotheses, it should be noted that several participants ($n = 10$) were dropped from analyses due to confusion with the instructions for the task, resulting in a small sample ($N = 29$; though conclusions remained unchanged when these 10 participants were included in analyses). Additionally, the mean scores of the Roma and non-Roma profiles were similar, but not identical. To examine the roles of prejudice and dehumanization in predicting discrimination more closely, we conducted another study, this time among a larger group of participants, and with a paradigm that corrected the limitations identified in Study 1a.

Study 1b

Method

Participants. Participants were a new group of preservice teachers recruited from the same graduate program as the pilot study and Study 1a. Of the 294 students who completed the online survey and passed embedded attention check questions, 161 opted to complete the student tracking study (128 females; $M_{\text{age}} = 21.2$ years, $SD = 2.02$).⁵ Data were analyzed only after data

collection had been terminated. Participants were compensated 3,000 Hungarian Forints (~\$10 USD) for each portion of the study.

Survey measures. Students completed the same omnibus survey as in Study 1a. The survey included the same key measures of prejudice, blatant dehumanization, and subtle dehumanization.

Student profiles. Student profiles were similar to those used in Study 1a: 22 student profiles (12 objectively average non-Roma profiles, 6 objectively average Roma profiles, and 2 objectively weak and 2 strong non-Roma fillers), which identified the student by name (either typically Roma or typically non-Roma) and included competence and subject test scores; individual profiles varied across all scores. However, in Study 1b test scores were adjusted so that the objectively average Roma and non-Roma profiles had identical (rather than similar) means across competence tests ($M_s = 61.50$) and subject tests ($M_s = 2.77$), and also separately for subject tests in the “hard” disciplines of math and physics ($M_s = 3.08$) and the “soft” disciplines of history, Hungarian, and English ($M_s = 2.56$; for sample profiles, see supplemental material). Instructions for the task in Study 1b also asked more explicitly for ratings of how *appropriate* each school track was for each student, using continuous slider bars anchored at 0 (*not at all appropriate*) and 100 (*very appropriate*), to avoid having participants erroneously give ratings for how *qualified* each student was for that track, thereby reducing the potential for ambiguity identified in Study 1a. Again, the weak, medium, and strong profiles elicited the expected endorsements for each of the three educational tracks (Figure S1B).

Procedure

The procedure was identical to that of Study 1a, except that the survey was provided at the beginning of the term, and the student placement activity 6 weeks later in the middle of the term, to allow for greater participation.

Results and Discussion

Preliminary analyses. Descriptive statistics and intercorrelations of all variables for participants who completed both the survey and student placement task are presented in Table 3. As with Study 1a, we use the differences in blatant dehumanization, subtle dehumanization, and prejudice reported towards non-Roma versus Roma as our predictor variables. Nevertheless, we also report results examining dehumanization and prejudice towards the outgroup (Roma) alone. Consistent with Study 1a, preservice teachers examined in Study 1b showed significant levels of blatant dehumanization, subtle dehumanization, and prejudice toward the Roma (all $p_s < .001$).

Primary analyses. We had two aims in Study 1b: first, we wanted to replicate the interaction between student placement and group identity observed in the pilot study and Study 1a. Second, we wanted to replicate the multiple regression effects from Study 1a, showing that blatant dehumanization was associated with discrimination, controlling for prejudice and subtle dehumanization.

We examined teachers' tracking discrimination using a 2 (target group: Roma, non-Roma) \times 3 (school track: low, middle, high) within-subjects ANOVA. Replicating the pilot study and Study 1a, we observed no main effect of target group, $F(1, 160) = 1.01, p = .32$, a main effect of school track, $F(2, 320) = 144.70, p < .001, \eta^2 = .48$, and the expected Target Group \times School Track interaction, $F(2, 320) = 12.84, p < .001, \eta^2 = .07$. Mirroring the results from Study 1a, planned paired-samples t tests revealed that the preservice teachers rated Roma students as significantly better suited than non-Roma students for the low track (Roma: $M = 47.25, SD = 25.38$; non-Roma: $M = 44.45, SD = 23.83$); $t(160) = 3.27, p = .001$, Cohen's $d = 0.26$, significantly less well suited for the high track (Roma: $M = 28.38, SD = 19.11$; non-Roma: $M = 31.29, SD = 19.15$); $t(160) = 4.62, p < .001$, Cohen's $d = 0.37$, and equally well-suited for the middle track (Roma: $M = 66.94, SD = 16.97$; non-Roma: $M = 67.86, SD = 15.19$); $t(160) = 1.27, p = .21$.⁶

Next, we examined how strongly blatant dehumanization, subtle dehumanization, and prejudice towards the Roma (obtained on a survey 6 weeks earlier) were associated with discrimination. As with Study 1a, we found that discrimination was uniquely and significantly predicted by blatant dehumanization, but not by subtle dehumanization or prejudice, when all three variables were included in a regression analysis (see Table 4).⁷

In a final analysis, we explored the relationship between dehumanization and prejudice further by examining the predictive power of blatant dehumanization on educational tracking across levels of prejudice. Even though prejudice was not correlated with discrimination across Studies 1a and 1b, we surmised that prejudice could still be relevant to discrimination. Specifically, it could be that low prejudice among teachers may blunt the effects of dehumanization, resulting in a weaker correlation between dehumanization and discrimination, while high prejudice among teachers may enhance the effect of dehumanization on discrimination. If this were the case, we may expect a moderation of the effect of dehumanization on discrimination by prejudice. Alternatively, dehumanization may be as strongly associated with discrimination for teachers low in prejudice as it is among teachers high in prejudice. That is, even among teachers who show less affective prejudice towards the Roma, those who dehumanize the Roma might still recommend them to lower educational tracks—not because of any affective spite but simply because they view them as lacking the capacities required for the more demanding middle and high tracks. Interestingly, we found a third pattern of results: Using PROCESS (Hayes, 2013; Model 1), we found that prejudice moderated the relationship between blatant dehumanization and discrimination, $b = -0.00$, $t(157) = 2.22$, $p = .028$, but that this moderation reflected a stronger relationship between blatant dehumanization and discrimination among teachers *lower* in prejudice. That is, blatant dehumanization predicted discrimination significantly better for the teachers who expressed the lowest prejudice towards the Roma, $b = 0.33$,

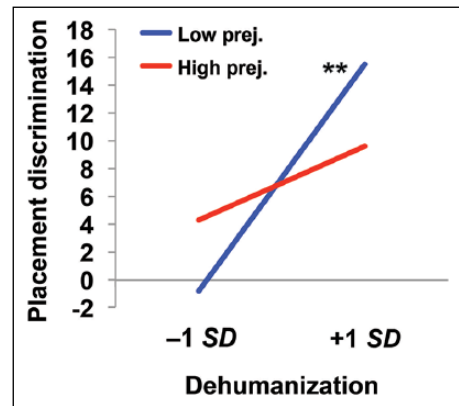


Figure 2. Blatant dehumanization predicts student tracking discrimination even (and especially) among teachers low in prejudice. $**p < .005$.

$t(157) = 3.19$, $p = .002$, and the relationship between dehumanization and discrimination was only marginally significant for those highest in prejudice, $b = 0.11$, $t(157) = 1.90$, $p = .06$ (see Figure 2).⁸ Therefore, not only was the relationship between dehumanization and discrimination intact for lower prejudice teachers, it was in fact stronger than it was for higher prejudice teachers; and the teachers who showed the highest levels of overall discrimination were those who were high in dehumanization and low in prejudice.

General Discussion

In this research, we examined the psychological roots of tracking discrimination in preservice teachers. A pilot study first revealed the predicted discrimination in tracking decisions by Hungarian preservice teachers: those teachers who read an academic profile associated with a Roma (vs. non-Roma) name were less likely to place the Roma student in the middle educational track and more likely to place them in the lowest educational track, thus denying them future access to higher education. In Studies 1a and 1b, we replicated these effects using a within-subjects paradigm with distinct samples of preservice teachers, and found that teachers who viewed the Roma to be

less “evolved” also showed greater disparity in low versus high tracking of equally qualified Roma compared to non-Roma students, while subtle dehumanization and explicit prejudice did not uniquely predict tracking bias. Indeed, we found that dehumanization predicts tracking discrimination even (and particularly) for those lower in prejudice.

Although this research focused on determining the psychological drivers of teacher placement bias, it is worth noting the importance of the student tracking discrimination itself. Teacher discrimination has been demonstrated with other marginalized groups previously. For example, in Sweden the disparity in grading of exams between teachers who are blind versus not blind to ethnicity is greater for immigrants (vs. ethnic majority Swedes), and particularly for non-European immigrants (Hinnerich, Höglin, & Johannesson, 2015); and in Germany, teachers give lower grades and recommend students significantly less for the highest educational track if they think the essay is written by a Turkish-German student (vs. an ethnic majority German student; Sprietsma, 2013). Here, we extend this previous work by demonstrating that Hungarian preservice teachers exhibit similar discrimination towards Roma versus non-Roma students. We extend this research by finding (and replicating) that teachers continued to show anti-Roma discrimination even when they completed a *within*-subjects version of the task in which they provided placement ratings for many Roma and non-Roma student profiles. The examination of within-subjects effects is important as it represents a particularly conservative test of discrimination—because participants are evaluating both Roma and non-Roma candidates, they may become aware that their responses across these categories are being examined, and thus self-regulate discriminatory tendencies. Perhaps for this reason, while the discrimination effects from the within-subjects version of the study were strong and significant, they were slightly weaker than they were for the between-subjects version of the study (as we might predict, see Gigerenzer, 1991).

The central contribution of this research was its examination of the underlying processes predicting educational discrimination, a question that has been the subject of only limited attention to date, and that has not previously included dehumanization as a predictor variable. In particular, we examined the extent to which tracking bias was predicted by affective prejudice, subtle dehumanization, and blatant dehumanization of the Roma. Consistent with research in the German context, we found that teacher tracking bias was not predicted by prejudice. In contrast, extending prior work and consistent with our predictions, we found that blatant dehumanization was significantly predictive of preservice teacher discrimination. This insight is particularly important considering interventions and programs that address discrimination of Roma students among teachers through so-called “sensitivity trainings” in Hungary, which almost exclusively focus on decreasing affective prejudice (Kende, Nyúl, & Hadarics, 2018). The present research implies that instead of (or in addition to) targeting feelings and emotions towards the Roma, educators and organizations should perhaps design trainings that promote “rehumanizing” messages about Roma students.

It is also notable that blatant dehumanization predicted teacher discrimination, while subtle dehumanization (infrahumanization) did not. These results are contrary to the assumptions of the educational prejudice literature, which predicts that subtle prejudice may be a stronger predictor of teacher discrimination than more overt forms of prejudice. Although we are unaware of any work that examined both subtle and blatant measures of prejudice as predictors of teacher discrimination, across studies at least one study has shown that teacher discrimination is not predicted by blatant prejudice (Sprietsma, 2013), while others show that teacher discrimination is predicted by subtle/implicit prejudice (Peterson et al., 2016; van den Bergh et al., 2010).

Prior work on blatant dehumanization has largely focused on its role in predicting violence and hostility in antagonistic contexts. For example, blatant dehumanization of Muslim refugees

in Europe is associated with signing anti-Muslim refugee petitions (Bruneau, Kteily, et al., 2018); blatant dehumanization of Arabs and Muslims in the US and England, respectively, is associated with support for torture (Kteily et al., 2015); and Israelis and Palestinians' blatant dehumanization of one another predicts their opposition to peaceful negotiation (Bruneau & Kteily, 2017). But blatant dehumanization is also theoretically relevant in less overtly hostile settings: Even in the absence of any hostile affect towards a given target, perceiving them as inferior beings essentially lacking human capacities such as rationality and self-control might lead to behaviors—potentially even well-intentioned ones—that have adverse consequences for the targets in question (e.g., colonizers subjecting aboriginal populations to “civilizing” processes; see also Saminaden et al., 2010). We reasoned that in the educational context—which may be marked much less by antagonism than by well-meaning attempts to help—dehumanization might be particularly relevant to discrimination against minority students. Our finding that dehumanization predicted tracking bias beyond affective prejudice is consistent with this reasoning, and empirically extends research on the consequences of blatant dehumanization to less antagonistic settings than previously considered.

Our work also provides insights and poses new questions into the relationship between dehumanization and prejudice, and, relatedly, about the *reasons* for the dehumanization effects we observed. Previous research has established that even though blatant dehumanization and prejudice are often robustly correlated, they are independent predictors of outcomes, and independently influenced by separate antecedents (e.g., metadehumanization and metaprejudice; Kteily & Bruneau, 2017a; Kteily, Hodson, & Bruneau, 2016). A neuroimaging study also found that making dehumanization and prejudice judgments on the scales used here (ascent dehumanization and feeling thermometer) recruited distinct brain regions (Bruneau, Jacoby, Kteily, & Saxe, 2018), suggesting that these evaluations may be not only statistically separable, but cognitively

distinct. The finding that blatant dehumanization continues to predict teacher discrimination even when controlling for prejudice is consistent with this previous work. To date, however, most work has tended to examine antagonistic settings, in which dehumanization and prejudice are aligned and predict outgroup aggression similarly. Our consideration of a setting less marked by overt hostility led us to more seriously consider how dehumanization might predict discrimination *across* levels of affective prejudice, focusing on how dehumanization might function to predict discriminatory outcomes even in the relative *absence* of affective prejudice. In fact, our moderation analysis revealed that the association between dehumanization and discrimination was especially strong for those teachers who were *lowest* in prejudice. For highly prejudiced teachers, dehumanization still predicted more discriminatory behavior, but only marginally.

It should be noted that the moderation by prejudice was not significant for the small sample of preservice teachers in Study 1a. However, even if we indulge a healthy skepticism of the moderation results suggesting that the relationship between dehumanization and discrimination is significantly stronger among lower prejudice teachers, both studies were consistent with the more conservative interpretation that at least low prejudice did not buffer against the effects of dehumanization. These results are in line with Saminaden et al. (2010), who showed that participants held implicit animalistic views of native people, even though there was no tendency to evaluate them negatively; in fact, these participants had a tendency to report somewhat positive explicit evaluations of traditional people. As with Saminaden et al. (2010), our results are consistent with paternalism expressed towards marginalized groups throughout modern history (Haslam & Loughnan, 2012; Jahoda, 2013). A parsimonious interpretation of our results in line with paternalism is that Hungarian teachers who dehumanize the Roma by seeing them as inferior beings fundamentally lacking sophisticated mental capacities and intellectual potential steer them clear of the higher educational tracks because they may

see that effort as a waste of time towards an untenable goal, even (and perhaps particularly) when lacking affective hostility towards minority targets. Indeed, the ascent measure of dehumanization is associated with trait evaluations of targets as “savage” and “immoral,” but also with evaluations of targets as “irrational” and lacking in “mental sophistication” (Kteily et al., 2015), perceptions that might be driving discrimination in the absence of affective hostility.

Teachers high on dehumanization and low on prejudice could therefore plausibly discriminate against the Roma “for their own good,” “sparing” Roma students from what they see as the humiliation of inevitable failure in higher educational tracks. Although this intent may be well-meaning, it could nevertheless help to maintain ethnic hierarchies. This would be consistent with research on benevolent sexism, which suggests that men may exhibit sexism towards women that is driven by the paternalistic motivation to protect women who they assume may not be fully capable of looking after their own welfare (Glick & Fiske, 1996), which may by intent or as a by-product help to maintain gender hierarchies.

The ability of dehumanization to predict discrimination equally (or more) among low (vs. high) prejudice individuals may characterize reasoning about minority groups even outside educational settings. Historically, policies such as the forced removal of native children from their homes to educate them in “civilized” boarding school programs (Adams, 1995; Hallett, Chandler, & Lalonde, 2007) could have been supported both by people high in dehumanization and high in prejudice, who wanted to eradicate native culture, and by those high in dehumanization and low in prejudice who harbored no hostility towards native people—or even felt fondness towards them—and thought that this approach would provide them with a better life (e.g., “kill the Indian, save the man”); common to both ideologies is the belief that the target group is fundamentally inferior to one’s own. Contemporary policies may be similarly inspired by dehumanization of minority groups. For example, support for “tough on

crime” policies could be motivated in some by a desire to punish or incarcerate Black men, and in others out of concern for the welfare of people in Black communities plagued by violence (Alexander, 2012; Beckett & Sasson, 2003); in both cases, dehumanization may lead people to justify excluding Black communities from setting policy, and instead make decisions “on their behalf.”

Finally, it is important to note some limitations in the current research, beyond what we already mention. First, it will be important in future work to identify other factors that contribute to discrimination against minority students. Although blatant dehumanization proved a significant predictor of discrimination (consistently across Study 1a and Study 1b), there remains much variance in discrimination that needs to be explained. Previous research conducted in Hungary suggests that attitudes towards the Roma are expressed in blatantly negative ways made possible by social contexts that approve of these beliefs (Kende, Hadarics, & Láštiová, 2017). Indeed, anti-Roma prejudice is expressed in overt and explicit ways in family settings, public discourse, in the media, in policy decisions, and in institutional practices (Enyedi, Fábíán, & Sik, 2004; Kende et al., 2018; Kertesi & Kézdi, 2011; Kroon, Kluknavská, Vliegthart, & Boomgaarden, 2016; Orosz et al., 2018; Vidra & Fox, 2014). Therefore, future work could more closely examine the role of normative forces in driving teacher discrimination of minority students.

It should also be emphasized that the current research was conducted in Hungary, where overt anti-Roma sentiment is widespread and actively promoted by the government. We suggest that this may be one reason why blatant dehumanization was so much stronger at predicting discrimination than subtle dehumanization. Therefore, it will be interesting to examine the effect of subtle versus blatant forms of prejudice and dehumanization on educational discrimination both in other countries that share Hungary’s overt hostility norms (e.g., Czech Republic; Bruneau, Kteily, et al., 2018), and countries that espouse strong

egalitarian norms (e.g., Germany and Scandinavian countries). It is possible that in countries like Germany and Norway, more subtle forms of dehumanization (e.g., infracommunication) may be stronger predictors of discrimination than blatant dehumanization.

Finally, the association between dehumanization and discrimination here was correlational in nature. Future research could manipulate minority group dehumanization (vs. prejudice) to identify a causal link between dehumanization and discrimination.

Conclusion

In all, we found support for each of our four hypotheses. First, in both a between-subject and two within-subject paradigms, we found that Hungarian teachers selectively denied minority Roma students access to higher educational tracks, favoring their placement into the lowest educational track (H1). Second, we found that this student tracking bias was significantly correlated with blatant dehumanization (H2), even when controlling for prejudice and subtle dehumanization (H3). Indeed, prejudice and subtle dehumanization were uncorrelated with tracking discrimination. Finally, we found evidence that blatant dehumanization predicted discrimination even for teachers low in prejudice (H4)—in fact, we found in Study 1b (but not 1a) a significant moderation, such that the relationship between dehumanization and discrimination was stronger for teachers *lower* in prejudice, and the teachers high in dehumanization and low in prejudice showed the greatest tendency to discriminate against Roma students.

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Supplemental material

Supplemental material for this article is available online.

Notes

1. Ten additional participants completed the task, but erroneously rated how *qualified* they perceived students to be for each educational track, as opposed to how *appropriate* they perceived each educational track was for target students (i.e., they gave objectively strong students systematically *higher* ratings for the lowest track). These participants were therefore dropped from the analyses; however, results were similar if these participants were included in the analyses.
2. The time period available in which to recruit the sample was short, resulting in a small sample size.
3. Note that the ascent dehumanization and prejudice items (which featured a range of groups) appeared prior to any survey items that highlighted the Roma/non-Roma distinction.
4. Results were similar—with blatant dehumanization predicting and subtle dehumanization and prejudice not predicting discrimination—when absolute values of each variable were used.
5. Preservice teachers who completed the second study did not differ from those who did not on age, gender, prejudice, blatant dehumanization, or subtle dehumanization (all p s > .05).
6. Note that the difference in Study 1a (and Study 1b) was driven by evaluative differences on the low and high educational tracks, rather than the low and medium tracks observed in the pilot study. This is likely due to the fact that the profiles in Studies 1a and 1b were less exclusively mediocre and spanned a range of scores, rather than the single profile provided in the pilot study.
7. Results were similar—with blatant dehumanization predicting and subtle dehumanization and prejudice not predicting discrimination—when absolute values of each variable were used.
8. Note that this interaction was not significant for Study 1a ($p = .778$), although that study was rather underpowered ($N = 29$) for this analysis.

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