

Biased teacher expectations of students with migration backgrounds: Analysis with nationality stereotype clusters

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Received: 26 June 2024 / Revised: 29 October 2024 / Accepted: 21 November 2024
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Abstract Student migration backgrounds and socioeconomic status can bias teacher expectations. Such expectations can lead to discrimination as they are the basis for unfair teacher assessment and exclusion from learning opportunities. To identify students at risk of experiencing low biased expectations, researchers used a grouping of nationalities based on the stereotype content dimensions of competence and warmth. The migration backgrounds of 1036 students in grades 4–6 in Switzerland were grouped into four clusters (i.e., 1 = competent, warm; 2 = medium competent, cold; 3 = incompetent, cold; 4 = incompetent, warm). Students without migration backgrounds served as reference group. Blockwise multilevel regression analyses showed that teacher expectations for student mathematical achievement were lower for students in cluster 2 compared to the reference group of students without migration backgrounds after controlling for mathematics achievement, the highest value of the parents' occupations (HISEI), and home language. Similar results were found for teacher expectations in German. Stepwise logistic multilevel regression analyses indicated that students with migration backgrounds from cluster 2 were significantly more likely expected by teachers to enter a school track with basic demands than students without migration backgrounds after controlling for achievement in mathematics and German, HISEI, and home language. Thus, some students with migration backgrounds are particularly at risk of being discriminated against by teachers. These findings must be discussed in teacher education and used to develop preventive strategies, considering the negative influence of biased low teacher expectations on students' educational careers and, therefore, their participation in society.

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Keywords Teacher expectations · Nationality · Inclusion · Educational inequality · School track · Achievement

1 Introduction

In Switzerland, like in many European countries, classroom diversity is increasing with globalization and the growing mobility of people (Bartosik 2022). Evidence shows that classroom diversity can positively affect the conviviality between different social groups. For instance, it can help to reduce students' stereotypes towards minority group students (Fine–Davis and Faas 2014; Janmaat 2014). Moreover, social contact between different social groups is related to positive attitudes towards minority group students (Janmaat 2014; van Geel and Vedder 2011). However, despite these potential positive social outcomes, such classrooms also entail a risk of exclusion and discrimination of children from minority groups (Graham 2006). Such negative experiences, in turn, can cause stress and school disengagement and, in the long term, problems in the socio–emotional adjustment of affected students (Ladd et al. 2008; Sturaro et al. 2011). To better understand how diversity and inclusion can be supported in classrooms, discriminating factors of the school environment need to be studied thoroughly.

Teachers are key agents who influence classroom social processes (Farmer et al. 2019). Their beliefs (e.g., expectations, stereotypes) influence their behaviors (e.g., feedback) that consequently affect student academic and social outcomes (Gentrup et al. 2020; Wang et al. 2018). If teacher beliefs are biased by stereotypical thinking, this can lead to unequal treatment (Babad 1993). Thus, to support students in their academic and social development, the way teachers think about their students should not be influenced by their stereotypes (Lorenz 2021). Unfortunately, evidence indicates the contrary. Teacher expectations are biased by students' social and migration backgrounds, to the detriment of students with migration backgrounds and low socioeconomic status (SES; de Boer et al. 2010; Gentrup et al. 2018; Hinnant et al. 2009; Shifrer 2013).

This study focuses on teacher expectations of students with diverse social backgrounds (i.e., migration backgrounds, SES, home language) in Switzerland. The novelty in this study is that migration background is not included as a dichotomous variable (i.e., with versus without migration backgrounds) but along a categorization based on stereotypes of nationalities in Switzerland (Neuenschwander et al. 2024a), which allows better capture of the complexity of students' backgrounds.

1.1 Teacher achievement and school track expectations

Teacher achievement expectations are defined as inferences teachers make about their student's academic achievement based on what they know about their students in the present (Brophy and Good 1970). Teachers have thus expectations for their students, which consist of what they believe their students can achieve (Rubie–Davies 2009). When teachers have high expectations, they provide more attention and support, offer students learning more challenging opportunities, and

interact with students more often and for extended periods than when they have low expectations (Babad 1993; İnan–Kaya and Rubie–Davies 2021). While high expectations can have positive effects on students' academic outcomes (Gentrup et al. 2020; Lorenz 2021; Wang et al. 2018; Zhu et al. 2018), low teacher expectations can negatively influence students' academic outcomes (Madon et al. 1997; Rubie–Davies and Peterson 2016; Hollenstein et al. 2024).

Similarly, there is a high consistency between teacher school track expectations and school track assignments in lower secondary schools (Neuenschwander et al. 2015). School track expectations are beliefs about the lower secondary school track that students will be assigned to after a selection procedure in primary school. In many Swiss cantons, students are assigned after primary school to one of three lower secondary school tracks (i.e., low, medium, and high demands) based on their achievement in mathematics and German, motivation, and teacher expectations. Thus, teachers play an important role in students' educational careers (Neuenschwander et al. 2015). Access to school tracks with high demands is highly selective. Considering that participation in society is correlated with SES, it is important to identify discriminatory processes in which teacher expectations play a role.

1.2 Biased teacher expectations

An essential element of inclusive education is to offer a framework within which all students are provided with educational opportunities adapted to their potential (Thomas et al. 1997). Unfortunately, teacher expectations can be biased by student migration backgrounds and SES (Neuenschwander and Niederbacher 2021; Lorenz 2021; Glock and Krolak–Schwerdt 2014; van den Bergh et al. 2010). Students with migration backgrounds and low SES are more likely to be confronted with lower teacher expectations than students without migration backgrounds and higher SES (Neuenschwander and Niederbacher 2021; van den Bergh et al. 2010). This leads to fewer interactions supporting their learning (İnan–Kaya and Rubie–Davies 2021), fewer opportunities to achieve higher grades and fewer chances of being assigned to tracks with high demands. In Switzerland, there is evidence that students with low SES and migration backgrounds are less likely to achieve higher grades and to have access to school tracks with high demands than their peers with high SES and without migration backgrounds after controlling for achievement (Kronig 2007).

According to dual–process theories, humans form impressions of other people along a continuum (Fiske et al. 1999). At one end of the continuum, impression formation is based on the automatic activation of stereotypes. On the other end, impression formation does not rely on stereotypes but on the various characteristics of the target person. When impression formation is based on stereotypes, activated stereotypes influence teacher expectations about students (van den Bergh et al. 2010). This means, for instance, that teacher expectations toward students are lowered if students are perceived as members of a low SES group or a group with migration backgrounds because stereotypes about these groups are often negative (Glock and Krolak–Schwerdt 2014).

1.3 Students' migration backgrounds—a stereotype-based approach

Many studies that have demonstrated the relationship between migration backgrounds and low teacher expectations, have analyzed migration backgrounds as a dichotomous variable: those with migration backgrounds versus those without. However, the group of students with migration backgrounds is diverse, and their risk of discrimination varies by nationality (Verkuyten and Martinovic 2012).

Nationalities can be grouped along two dimensions of stereotype content: warmth and competence (Fiske et al. 2002; Cuddy et al. 2009). Warmth is characterized by friendliness and sincerity, while competence includes capableness and confidence. Several studies using these dimensions have shown that nationalities can be grouped into four clusters in dependence on how they are stereotypically perceived: (1) high in competence and warmth, (2) high in competence and low in warmth, (3) low in competence and warmth, and (4) low in competence and high in warmth (Asbrock 2010; Binggeli et al. 2014; Durante 2008). The own nationality is typically stereotyped as high in competence and warmth, like cluster 1. Cuddy et al. (2009) describe warmth as the motivation not to harm the residents and competence as the capability to harm or help residents. Thus, students of different nationalities considered competent and cold (cluster 2) are perceived as hostile.

Research on stereotype content model explains effects on intergroup beliefs and behavioral tendencies (Cuddy et al. 2007). In society, groups that are positively stereotyped on warmth and/or competence are facilitated (e.g., inclusion, support), while those groups that are negatively stereotyped on warmth and/or competence are harmed (e.g., exclusion, discrimination). Teachers, as members of society, are influenced by such prevailing stereotype contents. Consequently, it is likely that these stereotypes are reflected in their beliefs towards students and affect their behavior. Accordingly, their expectations about student achievement are shaped by such stereotypes. Using the classic approach of the dichotomous differentiation of migration backgrounds, little is known about the extent to which subgroups of students with migration backgrounds are at a higher risk of being negatively affected by biased teacher expectations (Appel et al. 2015; Urhahne and Wijnia 2021). For example, a nationality from cluster 2, could be stereotypically considered cold and competent (Cuddy et al. 2009). Such a stereotype could lead to less benevolent teacher expectations towards students with this nationality. Consequently, teacher expectations would be negatively biased and could lead to discrimination.

Cultural norms determine stereotypes of nationalities (Crandall et al. 2002) and, thus, differ by country. In consequence, groups of stereotypes of nationalities need to be investigated within a country. In Switzerland, two studies have investigated stereotypes toward immigrant groups based on the stereotype content model (i.e., Binggeli et al. 2014; Neuenschwander et al. 2024a), leading to similar results. In the study of Neuenschwander et al. (2024a), university students rated the competence and warmth of 70 predominant nationalities in Switzerland based on the stereotype content model of Cuddy et al. (2009). The stereotype ratings of the foreign nationalities were grouped into four clusters using iterative cluster analysis. Nationalities in cluster 1 were stereotyped by participants as high in competence and warmth, and included nationalities such as Italian, German, and Dutch. Nationalities in clus-

ter 2 were stereotyped as low in warmth and medium in competence, and included Turkish, Kosovar, and Serbian. Nationalities in cluster 3 were stereotyped as low in warmth and competence, and included Albanian, Afghan, and Eritrean. Nationalities in cluster 4 were stereotyped as high in warmth and low in competence, and included Sri Lankan, Portuguese, and Thai. Nationalities in the same cluster are similar in their stereotype content. Thus, they are assumed to have similar discriminatory experiences, such as biased low teacher expectations and fewer educational opportunities.

1.4 Present study

The clustering of nationalities based on stereotype contents can be used to differentiate the risk for discriminatory experiences of students with different migration backgrounds in Switzerland. Considering the relationship between migration backgrounds and low teacher expectations, we were interested in identifying which groups of students with migration backgrounds are particularly exposed to low teacher expectations. The present study analyzed teacher achievement and school track expectations about students with migration backgrounds based on their membership in one of four nationality stereotype clusters and compared it with students without migration backgrounds. The following research question was examined: Which groups of students with migration backgrounds are at risk of being confronted with low teacher achievement expectations and low teacher school track expectations?

Based on the stereotype content model (Fiske et al. 2002) and the clustering of nationalities of Neuenschwander et al. (2024a), we assume that because nationalities that are perceived in Switzerland as low in warmth and medium in competence (i.e., cluster 2) activate the negative stereotype of being willing and able to harm, students with these nationalities are more likely confronted with low teacher expectations compared to students without migration backgrounds. The stereotype content model also assumes that students with nationalities associated with low competence and high warmth (cluster 4) can receive active facilitation and passive harm and students with nationalities associated with low competence and low warmth (cluster 3) can elicit both active and passive harm. Therefore, students in clusters 4 and 3 could be confronted with lower teacher expectations than students without migration backgrounds. These effects could be weaker than for students in cluster 2 because these groups are perceived as either low in competence or not willing to harm. In contrast, nationalities that are perceived in Switzerland as high in warmth and competence (i.e., cluster 1), are expected to be less exposed to biased low teacher expectations compared to students without migration backgrounds. Research on intersectionality indicates that the effects of nationalities could be explained by student SES or language spoken at home that does not correspond with the language of instruction in school (Cole 2009). It is, therefore, important to control these variables. The following hypotheses are tested:

H1 Teacher expectations about student achievement are lower for students in cluster 2, 3 or 4 than for students without migration backgrounds.

H2 Teachers expect to assign students in clusters 2, 3 or 4 to a lower secondary school track with basic or medium demands with higher probability than students without migration backgrounds.

Student achievement in mathematics and German, student SES, and home language are controlled in the analyses.

2 Method

2.1 Sample

School principals in 42 randomly selected schools from six Swiss–German cantons agreed to participate in the research project SCALA—*Promoting educational chances in socially heterogeneous classes*. Teachers who voluntarily agreed to participate ($n=69$, 69.6% females, 4% with migration backgrounds, age $M=47.2$, $S=13.1$) filled out a questionnaire.

Data from $N=1152$ students from 74 classes in Grades 4–6 (51.9% females; 47% with migration background, mean age 10.7 years) was examined. The distribution of students between classes was similar (4th grade: $n=408$, 35.4%, age $M=9.7$, $S=0.6$, 51.7% female; 5th grade: $n=344$, 29.9%, age $M=10.7$, $S=0.6$, 49.4% female; 6th grade: $n=400$, 34.7%, age $M=11.8$, $S=0.6$, 54% female). Students whose German skills were estimated by teachers as too low to participate in the study were excluded ($n=11$).

One parent of each participating student was asked to complete a questionnaire ($n=1080$, 78% mothers, 21% fathers, 1% other persons, age $M=42$, $S=5.8$).

2.2 Instruments

Descriptive values of all included measures are presented in Table 1.

Table 1 Descriptives of all included variables

1152	<i>N</i>	<i>M</i>	<i>S</i>	<i>N</i> Missings
T: Teacher achievement expectations mathematics	1097	4.49	1.26	55
T: Teacher achievement expectations German	1102	4.36	1.24	50
S: Achievement mathematics	1116	1.23	1.55	36
S: Achievement German	1113	0.41	1.01	39
P: HISEI	1001	58.2	20.4	151
S: Home language German (1: German)	1120	0.48	0.50	32
S: Cluster 1 (1 vs 0)	1112	0.16	0.37	40
S: Cluster 2 (1 vs 0)	1112	0.18	0.38	40
S: Cluster 3 (1 vs 0)	1112	0.05	0.23	40
S: Cluster 4 (1 vs 0)	1112	0.07	0.25	40
S: Reference group (1 vs 0)	1112	0.54	0.50	40
T: Low track (1 vs 0)	1082	0.12	0.33	70
T: Medium track (1 vs 0)	1082	0.52	0.50	70

T Teacher data, *P* Parent data, *S* Student data

2.2.1 Teacher questionnaire

Teachers rated each student's *achievement expectations in mathematics and German* at the end of the semester on a scale from 1 (*poor*) to 6 (*outstanding*). To reduce teachers' time expenditure, researchers assessed teacher expectations using one item for each subject (e.g., Praetorius et al. 2013), resulting in a variable for teacher expectations in mathematics and one for teacher expectations in German.

Teachers also reported their *expectations of each student's lower secondary school track* (low, medium, high demands) using a single item: "What school track will the student be assigned to presumably?" The school track expectations were dummy-coded (low vs. other school tracks and medium vs. other school tracks).

2.2.2 Student questionnaire

Students indicated the languages they usually talk at home using open-ended questions. The variable of *home language, German*, was dummy coded (German 89% vs. other language 11%).

Students' migration backgrounds were assessed with the following questions: "What citizenship or nationality do you have (passport, identity card)?" In Switzerland, there are strong restrictions to receive the Swiss citizenship. However, when acquiring the Swiss citizenship, it is permitted to retain the non-Swiss nationalities. Therefore, many students keep a non-Swiss nationality in the second and third generation. Thus, the student nationality is a good indicator for migration background. The nationalities indicated by the students were categorized. Students of Swiss and foreign nationality were considered to have a foreign nationality. The nationalities were then assigned to one of four clusters based on stereotype contents of the study by Neuenschwander et al. (2024a): Cluster 1 (competence high and warmth high: $n=183$, Italian 33%, German 20%, Austrian 4%, Dutch 3%), cluster 2 (competence medium, warmth low: $n=195$, Turkish 19%, Kosovar, 17%, Serbian 13%, Macedonian 8%), cluster 3 (competence low, warmth low: $n=61$, Albanian 34%, Eritrean 12%, Afghan 7%, Nigerian 5%), cluster 4 (competence low, warmth high: $n=40$, Sri Lankan 28%, Portuguese 12%, Thai 8%, Brazilian 8%), and the reference group of students without migration backgrounds ($n=598$), Missing: $n=25$.

2.2.3 Achievement tests

Students' *achievements in mathematics and German* were measured with an achievement test for each grade. The curriculum-valid test for Grades 4 and 5 in mathematics included tasks on basic operations, applied calculus, logical thinking, and problem-solving. The test for the sixth grade also included tasks on fractions and decimals. The German achievement tests for all class levels focused on vocabulary, grammar, text comprehension, and reading. The reliabilities of the Grades 5 and 6 tests in German and mathematics were reported in a previous study (Neuenschwander et al. 2014). The fourth-grade tests were developed specifically for this study and comprised tasks from Moser et al. (2011) as well as functions from a standardized

test (Roick et al. 2004) and were reliable (Neuenschwander et al. 2021). Weighted likelihood estimates were calculated (Warm 1989).

2.2.4 Parent questionnaire

Students' *SES* was assessed by asking about their parents' occupations. Each occupation was coded with an International Socioeconomic Index of Occupational Status value, with a range from 11–89 (Ganzeboom and Treiman 2010). The highest value of the parents' occupations (HISEI) was used for these analyses.

2.3 Procedure

The study was conducted according to and in line with the guidelines of the research ethics board of the affiliated university. The guidelines require formal approval of proposed research if specific criteria (e.g., health studies) are fulfilled. The present study did not fulfill the criteria and, thus, did not require formal approval from the board. School principals, teachers, and parents were asked for their written informed consent. All participants voluntarily participated in the study. Teachers, parents, and students completed the questionnaires in weeks 5–17 of the 2016–2017 school year.

2.4 Analytical strategy

The four clusters of nationalities and the reference group of students without migration backgrounds were dummy-coded. Data was assumed to be missing at random. Therefore, the missing values were imputed 10 times using the NORM 2.03 program (Schafer and Olsen 1998), simultaneously estimating all variables' missing values. Imputed missing data allow for better regression analysis estimates than listwise deletion (Graham 2009; Little and Rubin 2020).

Hypotheses were tested with logistic regression analyses in MPlus 8 and sequentially, including all 10 imputed data sets. The data was structured hierarchically, as teachers assessed all students in their classrooms. Thus, standard errors were controlled for the multilevel structure by including “type=complex” (Muthén and Muthén 2017). Three models were run with students' HISEI, home language, and dummy coded clusters to predict teacher expectations of achievement in German, mathematics, and school track with basic and medium demands. Students' prior achievement in German and mathematics were included as control variables.

3 Results

Table 2 presents correlations between all included variables before imputations of missing values. HISEI correlates with achievement and with low and medium school track expectations. Teacher expectations in German correlate with teacher expectations in mathematics and negatively correlate with school track expectations.

Table 2 Correlations

	2	3	4	5	6	7	8	9	10	11	12	13
1 T: Teacher exp M	0.74***	0.51***	0.52***	0.29***	-0.18***	0.05	-0.16***	-0.11***	-0.04	0.16***	-0.53***	-0.34***
2 T: Teacher exp G	1.0	0.45***	0.60***	-0.32***	-0.23***	0.04	-0.17***	-0.14***	-0.12***	0.22***	-0.52***	-0.36***
3 S: Achievement M	-	1.0	0.62***	0.19***	-0.09**	0.08*	-0.10***	-0.09**	-0.01	0.07*	-0.25***	-0.27***
4 S: Achievement G	-	-	1.0	0.24***	-0.22***	0.05	-0.17***	-0.13***	-0.11***	0.21***	-0.31***	-0.25***
5 P: HISEI	-	-	-	1.0	-0.30***	0.13***	-0.26***	-0.14***	-0.21***	0.24***	-0.21***	-0.19***
6 S: Home language G	-	-	-	-	1.0	0.12	0.44***	0.21***	0.25***	-0.65***	0.13***	0.06*
7 S: Cluster 1	-	-	-	-	-	1.0	-0.21***	-0.11***	-0.12***	-0.48***	-0.03	-0.07
8 S: Cluster 2	-	-	-	-	-	-	1.0	-0.11***	-0.12***	-0.50***	0.17***	0.01
9 S: Cluster 3	-	-	-	-	-	-	-	1.0	-0.07*	-0.26***	0.07*	0.07*
10 S: Cluster 4	-	-	-	-	-	-	-	-	1.0	-0.29***	0.03	0.06
11 S: Without migration backgrounds	-	-	-	-	-	-	-	-	-	1.0	-0.16***	-0.02
12 T: Basic track exp	-	-	-	-	-	-	-	-	-	-	1.0	-0.28***
13 T: Medium track exp	-	-	-	-	-	-	-	-	-	-	-	1.0

961 < N < 1112

T Teacher data, P Parent data, S Student data, exp expectations, M mathematics, G German
 *** p < 0.001, ** p < 0.01, * p < 0.05 (two tailed)

3.1 Teacher expectations in mathematics and German

To test hypothesis 1, stepwise multiple regression analyses were calculated (Table 3). Findings show that students in cluster 2 ($\beta = -0.13$, $p < 0.001$; i.e., Turkish, Kosovar, Serbian, Macedonian), 3 ($\beta = -0.08$, $p < 0.01$; i.e., Albanian, Eritrean, Afghan, Nigerian), and 4 ($\beta = -0.06$, $p < 0.05$; i.e., Sri Lankan, Portuguese, Thai, Brazilian) had a lower probability compared to students without migration backgrounds to receive high teacher achievement expectations in mathematics, after controlling for achievement in mathematics. After adding home language, this effect was only found for clusters 2 and 3. After adding HISEI, only students in cluster 2 had lower teacher achievement expectations in mathematics compared to students with migration backgrounds ($\beta = -0.07$, $p < 0.05$). HISEI was a significant predictor of teacher achievement expectations in mathematics ($\beta = 0.18$, $p < 0.001$). The explained variance was 32%.

Teacher achievement expectations in German were lower for students in clusters 2 ($\beta = -0.09$, $p < 0.01$), 3 ($\beta = -0.08$, $p < 0.01$), or 4 ($\beta = -0.08$, $p < 0.01$) than for students without migration backgrounds after controlling for student achievement in German. These effects did not change after adding home language as a predictor. After

Table 3 Multilevel prediction of teacher expectations in mathematics and German (Standardized coefficients)

<i>N</i> = 1152	T: Teacher exp M	T: Teacher exp M	T: Teacher exp M	T: Teacher exp G	T: Teacher exp G	T: Teacher exp G
S: Achievement M	0.50 (0.03)***	0.50 (0.03)***	0.47 (0.03)***	–	–	–
S: Achievement G	–	–	–	0.57 (0.02)***	0.56 (0.02)***	0.53 (0.03)***
P: HISEI	–	–	0.18 (0.03)***	–	–	0.17 (0.03)***
S: Home language G	–	–0.05 (0.04)	–0.02 (0.04)	–	–0.05 (0.04)	–0.02 (0.04)
S: Cluster 1	–0.04 (0.03)	–0.02 (0.03)	–0.04 (0.03)	–0.03 (0.03)	–0.02 (0.03)	–0.03 (0.03)
S: Cluster 2	–0.13 (0.03)***	–0.10 (0.04)***	–0.07 (0.04)*	–0.09 (0.04)**	–0.07 (0.04)*	–0.04 (0.04)
S: Cluster 3	–0.08 (0.03)**	–0.07 (0.03)*	–0.04 (0.03)	–0.08 (0.03)**	–0.06 (0.03)*	–0.04 (0.03)
S: Cluster 4	–0.06 (0.03)*	–0.04 (0.04)	–0.01 (0.04)	–0.08 (0.03)**	–0.06 (0.03)*	–0.04 (0.03)
Akaike	3434	3433	3393	3230	3229	3191
R^2	0.29	0.29	0.32	0.37	0.37	0.39

Cluster 1: competence high, warmth high

Cluster 2: competence medium, warmth low

Cluster 3: competence low, warmth low

Cluster 4: competence low, warmth high

Reference group: without migration backgrounds

Home language: German vs. not-German

T Teacher data, *P* Parent data, *S* Student data, *exp* expectations, *M* mathematics, *G* German

Note. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (one tailed)

Table 4 Multilevel logistic prediction of teacher school track expectations (standardized coefficients)

<i>N</i> = 1152	T: Basic track	T: Basic track	T: Medium track	T: Medium track
S: Achievement M	-0.16 (0.09)*	-0.14 (0.09)	-0.25 (0.06)***	-0.24 (0.06)***
S: Achievement G	-0.31 (0.07)***	-0.29 (0.07)***	-0.15 (0.06)*	-0.14 (0.06)*
P: HISEI	–	-0.20 (0.07)***	–	-0.14 (0.05)**
S: Home language German	–	-0.02 (0.07)	–	0.01 (0.06)
S: Cluster 1	0.04 (0.06)	0.06 (0.06)	-0.06 (0.04)	-0.06 (0.05)
S: Cluster 2	0.19 (0.06)***	0.15 (0.06)*	-0.04 (0.05)	-0.08 (0.06)
S: Cluster 3	0.07 (0.05)	0.04 (0.05)	0.03 (0.04)	0.00 (0.05)
S: Cluster 4	0.05 (0.05)	0.01 (0.05)	0.04 (0.04)	0.01 (0.05)
R ²	0.25	0.28	0.14	0.16

Cluster 1: competence high, warmth high

Cluster 2: competence medium, warmth low

Cluster 3: competence high, warmth low

Cluster 4: competence high, warmth high

Reference group: without migration backgrounds

Home language: German vs. not-German

T Teacher data, *P* Parent data, *S* Student data, *exp* expectations, *M* mathematics, *G* German

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (one tailed)

adding HISEI, cluster membership was no longer a significant predictor for teacher expectations in German, but HISEI was a strong predictor ($\beta = 0.17$, $p < 0.001$). The explained variance was 39%.

3.2 Teacher school track expectations

To test hypothesis 2, stepwise logistic regression analyses were calculated (Table 4). Teacher expectations for the basic school track were higher for students in cluster 2 ($\beta = 0.19$, $p < 0.001$, i.e., Turkish, Kosovar, Serbian) than for students without migration backgrounds after controlling for achievement in mathematics and German. This effect was also found after controlling for HISEI and home language. The explained variance was 28%.

Cluster membership did not predict the expectations of the medium school track, but student achievement in mathematics ($\beta = -0.25$, $p < 0.001$) and German did ($\beta = -0.15$, $p < 0.05$). Additionally, HISEI predicted the expectations of the medium school track ($\beta = -0.14$, $p < 0.01$), but the home language did not. Only students from cluster 2 were more at risk of being assigned to the basic school track than students without migration backgrounds. However, their achievement levels in mathematics and German did not justify it.

4 Discussion

In line with previous studies (de Boer et al. 2010; Gentrup et al. 2018; Hinnant et al. 2009; Shifrer 2013), we found that teachers had lower expectations for students with

migration backgrounds, but not for all. Our findings confirm the necessity to consider different migration backgrounds (i.e., nationalities) and show the added value of a typology of nationalities based on the stereotype content model (Fiske et al. 2002). While teacher expectations about students with nationalities with the stereotype of being warm and competent, such as Italians, Germans, or Austrians, did not significantly differ from those about students without migration backgrounds, they were significantly lower for students with nationalities associated with the stereotype of being cold and medium competent, such as Turkish, Kosovar, or Serbian. Compared to the other groups of students with foreign nationalities (clusters 3 and 4), this effect remained significant for teacher expectations in mathematics and the assignment to the basic track after controlling for achievement, HISEI, and home language. Thus, students with nationalities from cluster 2 are particularly at risk of being confronted with low teacher expectations based on stereotypes. According to Cuddy et al. (2009), people who are stereotyped as cold are seen as motivated to harm, and people who are stereotyped as competent are perceived as able to harm. People associated with the stereotypes of cold and competent are perceived as aggressive, leading teachers to have biased lower expectations. In contrast, students with nationalities stereotyped as cold but low in competence (i.e., Eritrean, Afghan, Nigerian) are perceived as less threatening and, thus, were less confronted with negatively biased teacher expectations.

Further, we found evidence supporting intersectionality (Cole 2009) and the relationship between HISEI and migration backgrounds (Ditton 2007). The SES of students interacted with nationality and explained the low teacher expectations in mathematics and German of students with migration backgrounds in clusters 3 and 4. Including HISEI as predictor reduced the effect of competence stereotype in the clusters. This is in line with prior research that has shown strong correlations between student status and competence stereotype (Cuddy et al. 2007; Neuenschwander et al. 2024a). Further, home language that did not correspond with the language of instruction in school did not explain the effects of nationalities. Thus, it can be assumed that teacher expectations in mathematics and German are not affected by the student's home language but by stereotypes about student nationalities. Preventive measures are needed to sensitize teachers about stereotypical thinking and its influence on their expectations, as such expectations negatively affect students' learning opportunities. Particular emphasis must be placed on school track expectations, determining school track assignments, and access to tertiary education. This can help to ensure that the school system offers equitable educational opportunities, as well as social mobility and participation for students, independently of their migration backgrounds and SES.

4.1 Limitations

Grouping students' migration backgrounds based on stereotype clusters provides important information about students at higher risk of being subjected to low biased teacher expectations. However, it is impossible to conclude that teachers held negative stereotypes, as these were not assessed. More studies are needed to examine the extent to which negative teacher stereotypes influence their biased expectations.

Further, stereotypes about student nationalities can be confounded by student religion (Verkuyten and Martinovic 2012). The present analyses could not control for student religion because the variables were missing. Future research should examine whether the effects of cluster membership on teacher expectations are explained by student religion. Finally, teacher expectations about student achievement and school track assignments were measured with one item each to reduce teacher time expenditure in the study. However, teacher expectations are often assessed by single items only (e.g., Praetorius et al. 2013) because they are assumed to be sufficiently reliable.

4.2 Conclusions

Considering the negative effect of teacher expectations on student social, behavioral, and academic outcomes (Wang et al. 2018), biased low teacher expectations towards students with migration backgrounds, particularly those with nationalities such as Turkish, Kosovar, Serbian, or Macedonian need more attention in Switzerland. These students are at a higher risk of being discriminated against in the Swiss school system, which negatively affects their educational career and, thus, their participation in society. With globalization and increasingly diverse classrooms, stereotypes about nationalities should not determine the academic development of students. Future studies should examine whether nationality stereotypes are also associated with teacher–student relationships, social participation in classrooms, or assignment to school tracks and career decisions during school–to–work transitions.

Interventions targeting teachers are needed to reduce biased teacher expectations of students with migration backgrounds. A possible intervention strategy could be actively improving teacher–student relationships (Farmer et al. 2019). Research has shown that positive teacher–student relationships affect teacher ratings about student social competencies (Neuenschwander et al. 2024b) and achievement (Garbacz et al. 2014). Thus, improving the relationships of teachers with students of different nationalities—especially from cluster 2—could help reduce the biased expectations toward these students. Further studies are needed to verify these assumptions.

Another intervention strategy that was found to be effective is to inform and sensitize teachers about their biased expectations towards social groups (Neuenschwander et al. 2021). Educators can use information to deactivate stereotypes in teacher training (Glock and Krolak–Schwerdt 2014). Consequently, our study findings can be used in teacher training to sensitize teachers about the higher risk of certain students with migration backgrounds experiencing discriminatory practices.

Funding The Swiss Mercator Foundation (Grant Number 2014-0527), the State Secretariat for Migration, and the Swiss cantons Zürich and Aargau supported the data collection and analysis.

Funding Open access funding provided by FHNW University of Applied Sciences and Arts Northwestern Switzerland

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