THE INFLUENCE OF ETHNICITY ON TEACHER EXPECTATIONS AND TEACHER PERCEPTIONS OF STUDENT WARMTH AND COMPETENCE

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This study examines the influence of ethnicity on stereotypes and expectations of teachers, as well as the relationship of teacher expectations and stereotypes in relation to ethnic minority students by including the stereotype content model in the analysis. 34 primary school teachers participated in the experiment in which they analyzed six personal profiles of students, two of which were experimental. Experimental profiles contained identical information (annual school grade, testimonial, sex), but differed in names of the students and their parents and additionally in migration background. Thus, we manipulated only information related to ethnicity and migration history of two students. This allowed us to create a typical image of one and a half generation migrant child, who moved to St. Petersburg from Central Asia.

Teacher expectations about the performance of the minority student were always unfavorable compared with the expectations about the performance of the majority student but expectations about the abilities of minority and majority students, which include teacher beliefs about students’ educational skills, attitudes and motivation, capacity for work in school class, were mixed. We also discovered that the expectations of teachers positively related to the perceptions of competence and were not related to the perceptions of warmth. However, the minority student was evaluated by teachers as warm and competent as the majority. This study shows the relevance of the problem of correct expectations of teachers in relation to students with different ethnic backgrounds.

JEL Classification: I29.

Keywords: teacher expectations, stereotypes, stereotype content model, warmth, competence, ethnic minority students.

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1 Introduction

Teacher perception of the students as members of certain groups can contribute to the reproduction of inequality in schools. In accordance with the results of a classical study conducted by R. Rosenthal and J. Jacobson, incorrect expectations of teachers can actuate the Pygmalion effect, which manifests itself in the fact that the behaviour of students seem to be linked with teacher expectations and students begin to perform in a way that teachers expect from them (Brophy & Good, 1970; Rosenthal & Jacobson, 1968). Despite the fact that follow-up studies have shown contradictory results, there is evidence that the expectations of teachers and their beliefs about students in some cases related to their academic success (Ferguson, 2003; Jussim & Harber, 2005; Peterson, Rubie-Davies, Osborne, & Sibley, 2016; Rubie-Davies, Hattie, & Hamilton, 2006).

Furthermore, the researchers were able to identify a number of different student characteristics that can influence teacher perceptions, such as gender, socioeconomic status, special educational needs and others (Auwarter & Aruguete, 2008; Levins, Bornholt, & Lennon, 2005; Page & Rosenthal, 1990; Ready & Wright, 2011). The relationship between student ethnicity and teacher expectations is of particular interest in the context of the study of inter-ethnic relations in the school and the causes of an ethnic achievement gap. The results of many studies indicate that teacher perceptions may underlie the reasons why ethnic minority students have lower academic achievement than their peers belonging to the ethnic majority (Peterson et al., 2016; Rubie-Davies et al., 2006; Tenenbaum & Ruck, 2007). One of the most common explanations for the low expectations of teachers toward ethnic minority students is that teachers’ perceptions as a whole and their expectations in particular can be based on their ethnic stereotypes (Glock, Krolak-Scherdt, Klapproth, & Böhmer, 2013; Glock, Krolak-Scherdt, & Pit-ten Cate, 2015; Parks & Kennedy, 2007). Meanwhile, in a number of studies, this tendency is not observed in relation to all ethnic minorities, or has weak evidence or is not supported at all (Jussim & Eccles, 1995; Rubie-Davies et al, 2006).

In many studies the connection of ethnic stereotypes and expectations are often tested through the study of the expectations of teachers towards various ethnic minorities. The presence of differences in expectations suggests the influence of a stereotype. However, it can be assumed that the presence of the connection of ethnic stereotypes and expectations may be determined by the content of stereotypes. Thus, in accordance with the stereotype content model, each stereotype has two dimensions - “warmth” and “competence”, and in addition to that stereotypes are typically mixed, which means that out-groups are seen as competent but not warm and vice versa (Fiske, 2015; Fiske, Cuddy, Glick, & Xu, 2002). Various dimensions of
stereotype may be differently related to academic expectations. It can be assumed that the perception of a high "competence" of students is consistent with the high expectations of teachers, but the "warmth" of students, on the other hand, is not related to the expectations of the teachers towards these students at all. Thus, the question arises how teacher expectations related to the various components of their stereotypes.

While in Western countries the low academic achievement of children belonging to ethnic minorities is a problem that has been studied for decades, the influx of migrants from the CIS countries in Russia, which since the 90s of the last century has been becoming apparent by the increasing number of migrant children in Russian schools, actualizes the problem of correct teacher expectations in a new way in the Russian context. Most of today's migrants who bring with them children of all ages are migrants from Central Asia (Alexandrov, Ivaniushina, & Kazartseva, 2015). Despite the fact that xenophobic sentiments in Russia in relation to migrants from countries in this region have been falling in recent years, they are still high: 29% of Russians surveyed in 2015 believed that the inhabitation of immigrants from the former Central Asian Soviet republics in the territory of Russia should be limited and, in 2014, 17% and 20% of respondents felt anger and hostility towards the migrants from the southern republics, respectively (Levada-Center, 2014, 2015). The stereotypical image of migrants is negative and includes beliefs that they are low-skilled and impolite, have a repulsive appearance, display difficulties in communication and so on (Levada-Center, 2013). This data suggests that the stereotypes in relation to adult migrants would be rather “contemptuous” or “paternalistic”, that is that their perceived "competence" is low. Apparently, it is also typical of teachers to perceive one and a half, and the first generation migrant students as incompetent because of their real difficulties with the Russian language, which is not native, as well as the perception of them as children in need of adaptation to the new environment (Akifyeva, 2015; Alexandrov, Ivaniushina, Kostenko, Savelyeva, & Tenisheva, 2012). In this study, we have also tested the hypothesis that teachers perceive migrant students from Central Asia more paternalistic or contemptuous and have lower expectations for them compared to non-migrant students that will be correlated with the perception of their low "competence".

Thus, the main question of our research is how ethnicity influences stereotypes and teacher expectations.

2 Theoretical background
2.1 Content of Stereotypes
Stereotypes can be defined as “qualities perceived to be associated with particular groups and categories of people” (Schneider, 2004: 24).
According to the stereotype content model, stereotypes about any social groups are captured by two dimensions: "warmth" and "competence" (Fiske, 2015; Fiske et al, 2002). "Warmth" refers to personal qualities, reflecting the positive orientation of members of the perceived group to others (tolerant, warm, good natured, sincere), while “competence” refers to their qualities, contributing to their success and abilities (competent, confident, independent, competitive, intelligent). It has been shown that there is a connection between “competence” attributed to a group and its perceived competition and between “warmth” of a group and its status. The study demonstrates that the majority of stereotypes in relation to different social groups are mixed, that is, the social group may have a high indicator of one of these two scales and a small one - on the other. This differentiation is the basis for the allocation of two types of ambivalent stereotypes: paternalistic stereotypes, combining high levels of warmth and low levels of competence, and envious stereotypes, combining low levels of warmth and high levels of competence.

This model regarding the content of stereotypes, based on two main dimensions, was tested and confirmed in a study of women and men, different subgroups of women and men (for example, hippy, housewife, yuppie, rocker etc), different ethnic groups (Cuadrado-Guirado & López-Turrillo, 2014; Ebert, Steffens, & Kroth, 2014; Eckes, 2002; Janssens, Verkuyten, & Khan, 2015). Research of stereotypes about immigrants demonstrated not only the cross-cultural differences in the content of stereotypes, but also differences in relation to the various immigrant groups, for example, in the US undocumented migrants are perceived as having low competence, and Asians – high competence, which correlates with their perceived socioeconomic status (Cuddy et al, 2009; Lee & Fiske, 2006).

2.2 Teacher expectations and stereotypes/attitudes

According to the definition of Christine Rubie-Davies “teacher expectations are notions teachers hold about students' long- and short-term performance – beliefs teachers hold about what students are capable of achieving on a daily and long-term basis” (Rubie-Davies, 2008: 254).

Starting with the work of R. Rosenthal and J. Jacobsen (1968), it became clear that there is a deep connection between teacher expectations and student performance (McKown & Weinstein, 2008; Peterson et al., 2016; Rubie-Davies et al., 2006; van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010). Expectations of teachers often unconsciously influence their interaction with students. Teachers, depending on their expectations, display different behavior, provide students with a variety of opportunities to prove themselves in the classroom, praise and encourage some children and offer them additional training material (Good, 1987). The low expectations of teachers can lead to the fact that a child may pass an exam with worse
results than his real/underlying abilities, and, on the other hand, high teacher expectations can have a positive effect on student motivation and educational aspirations (Brind, Harper, & Moore, 2008).

Several studies have demonstrated that the perception of students by teachers corresponds to reality, for example, are more consistent with the personal characteristics of students than with their group characteristics (Jussim & Eccles, 1995; Madon et al, 1998).

However, many studies have shown that the different group characteristics of students can influence the expectations of teachers. The most studied characteristics, along with gender and socioeconomic status, are ethnicity and migratory status. Many studies suggest that teachers may perceive students belonging to ethnic minorities in a different way, compared with students who belong to the ethnic majority. However, despite the large number of studies, there is still controversy regarding the nature of this influence. Thus, on the one hand, there is evidence that teachers tend to generate higher expectations for the ethnic minority than for the ethnic majority students (Hachfeld, Anders, Schroeder, Stanat, & Kunter, 2010). On the other hand, numerous studies have shown that teachers tend to generate low expectations for ethnic minority students, and they also tend to recommend for them a lower educational track (Glock et al, 2013; Ready & Wright, 2011; Rubie- Davies et al, 2006; Tenenbaum & Ruck, 2007; Wigfield, Galper, Denton, & Seefeldt, 1999). There are studies in which the results are mixed. For example, depending on the information that is manipulated by the researchers, in some cases minority students were recommended for a higher school track, and in other cases - for a lower one in comparison with the majority students (Glock et al, 2015). In another study it was shown that teachers have both favorable and unfavorable expectations towards their minority students, depending on how expectations are measured (King Lewis, 2014).

Several pieces of research have studied how expectations of teachers interconnected with their ethnic stereotypes and attitudes. The study of the attitudes and expectations of teachers in Germany has shown that German teachers have less positive attitudes towards Turkish people, than towards Germans, but the attitudes of the teachers are not related to their expectations for the German and Turkish students (Sprietsma, 2013). In another study, it has been shown that there is a relationship between the implicit attitudes of teachers and their expectations. Teachers who showed implicit negative attitudes towards ethnic minorities have expressed low expectations in relation to them (van den Bergh et al., 2010).

Interviews with teachers confirmed the existence of the stereotypes: the expectations of teachers based on the ideas about the lack of minority student motivation and ressources provided by parents (Turner, Rubie-Davies, & Webber, 2015). Ethnic stereotypes can lead to the fact that teachers and preservice teachers, after familiarizing themselves with student
profiles, neglect real information about minority students such as their academic grades and hold inaccurate expectations for them (Glock et al., 2015).

Despite the fact that many researchers have been interested in studying the relationship between stereotypes and expectations, there has been no research examining the relationship of expectations with the content of stereotypes based on the two dimensions of "warmth" and "competence". Although some of the results can be interpreted in terms of the stereotype content model. For instance, within the studies of expectations and teacher attitudes towards students from different ethnic groups, the attitudes were measured by a feeling thermometer, which has a scale from 0 (very cold/uncomfortable) to 100 (very warm/comfortable) (Sprietsma 2013; van Ewijk, 2011). It has been shown that teachers evaluate children from ethnic minorities lower than the ethnic majority. This thermometer directly refers to the measurement of "warmth" from the stereotype content model, but "competence" was not measured in both studies.

The “expectations” have been defined and operationalized in a way that may interfere with the operationalization of stereotype (Brault et al, 2014; King Lewis, 2014; Regalla, 2013; van den Bergh et al, 2010). For example, van den Bergh et al. constructed a scale measuring teacher expectations by taking into account the definition given by Dusek and Joseph (1983): “teacher perceptions of an individual student’s performance, ability, and level of educational attainment” (van den Bergh et al., 2010: 507). As a result the scale includes items which measure not only teacher perceptions of the academic success of students in the present and future, such as the “He or she will probably have a successful school career”, but also items measuring their perception of the abilities of students, for example, “He or she is an intelligent student”, that is a direct reference to the classical scales measuring "competence".

In summary, it can be concluded that while some research has concluded that teacher expectations are based on ethnic stereotypes, the results of studies, which have focused on stereotype content, indicate that stereotypes of ethnic minorities are typically ambivalent. We believe that taking into consideration the heterogeneity of the content of stereotypes, allows a better understanding of the contradictory findings. It can be assumed that it is not the negative image of a group as a whole that affects the expectations of teachers, but only their perceptions of the competence of the members of the group, that is, if teacher expectations are based on stereotype, then it is the dimension of “competence” that has the most influence, not “warmth”.
3 Methods

The study involved 34 primary school teachers from five general education schools located in the same district of St. Petersburg. All teachers were women, whose average age was 38.29 (SD = 10.22) and the average teaching experience - 14.24 years (SD = 9.74).

The experiment was conducted in the spring of 2015. Teachers were invited to see the personal profiles of six students and fill in questionnaires that included scales measuring stereotypes and the expectations of teachers in respect of each student, as well as socio-demographic information about the teachers.

3.1 Experiment design

Student name is an important marker of ethnicity (Anderson-Clark, Green, & Henley, 2008), which is most significant for Russian teachers (Panova, 2006). In our study, we operationalize ethnicity through the migration status of students, as well as their and their parents’ ethnic name.

Six excerpts from the “personal profiles” of fictional students were used as stimulus material. The students reportedly completed the second grade in 2014 and then changed schools. Each excerpt looked like a typical Russian school “personal profile”, which accompanies students when they leave school, start to attend school and throughout their school study, and in our research included: 1) information about the name, gender, date of birth, the names of their parents, kindergarten address, and former place of study, if there was, 2) annual school grades which the student received at the end of the second grade, and 3) testimonial, compiled by the class teacher after the second grade. All of this information is obligatory and has to be included in their personal profiles, if a student changes school.

Only two from the six personal profiles were experimental. Experimental profiles contained identical information (annual school grade, testimonial, sex - male, date of birth – 15.10.2007), but had a different name of the child (Ilya Barabanov was used as ethnically neutral and Ahmad Sangaliev was used as ethnically-marked) and additionally in the names of their parents. Both students had a migrant background, but Ilya moved to St. Petersburg from Moscow, Russia and Ahmad moved from Tashkent, Uzbekistan. This migration experience was reflected in the section, which contained information about the schools in which they studied in the past and its address (a school in Moscow and a school in Tashkent). Thus, in the course of the experiment, we manipulated only information related to ethnicity and migration history: the names of children and parents and the fact of moving from another capital city. This allowed us to create a typical image of one and a half generation migrant child, who moved to St. Petersburg from Central Asia. In this article the student with external migration history
(Ahmad) will be called the ethnic minority student, and the student with internal migration history - the ethnic majority student.

During the experiment the teacher filled in 2 types of questionnaires: with questions about the expectations and stereotypes in relation to the students and a final questionnaire, which collected socio-demographic data about teachers, as well as rating expectation scale.

### 3.2 Measures
#### 3.2.1 Stereotypes

Stereotypes were measured by eight classic scales in the study of the content of stereotypes: four focused on the measurement of “warmth” (good natured, friendly, sincere, warm) and four on the measurement of “competence” (capable, intelligent, efficient, confident) (Fiske, 2002). To avoid bias in the estimation, some adjectives were replaced by semantic opposites: warmth (good natured, unfriendly, insincere, cold) and competence (capable, intelligent, efficient, unconfident). Respondents were asked to rate on a five-point Likert scale (where 1 - "totally disagree" and 5 - "totally agree"), "... the extent to which each of the following qualities corresponds to the student ...", whose personal profiles they had read. Scale-antonyms were recoded during data analysis, so we will continue to call them for the convenience of understanding the meaning as "friendly", "sincere", "warm", "confident".

#### 3.2.2 Expectations

Expectations were measured in several ways:

1. In your opinion, at the new school this student will perform academically as well as their middle-class peers.
2. In your opinion, at the new school this student is capable of at least average academic performance in all subjects.
3. In your opinion, at the new school this student is capable of learning the material presented in class.
4. In your opinion, at the new school this student has the skills necessary to be successful in school.
5. In your opinion, at the new school this student is motivated to do their best in class.
6. In your opinion, at the new school this student works very hard to do their best in class.
7. In your opinion, at the new school this student will quit school in high school.
8. In your opinion, at the new school this student thinks that education is very important.

During data analysis, the item "In your opinion, at the new school this student will quit school in high school" has been recoded with the aim that all items were about positive expectations. Therefore, we will call this item "will not quit school in high school".

All items were translated in Russian by a multiple back-translation procedure applying to all stereotypes and Regalla’ scales. Similarly, antonyms for stereotypes' items were chosen.

2) Using rating scale expectations. Respondents were asked to rate six children, whose “personal profile” they evaluated, in accordance with their future academic performance, therefore, the scale ranges from 1 ("will study better than other students") to 6 ("will study worse than other students").

3) Teachers also pointed out how well, in their point of view, each of the children will study at the end of the third grade (ie one year after the “personal profiles” had been prepared) in four school subjects: Russian language, mathematics, English language and literature. The scales ranged from 1 to 5, where 1 - "very bad" and 5 - "very good".

3.3 Procedure

Data was collected from each teacher individually. Teachers were informed that the research focused on the role that information from the “personal profiles” plays in the educational process. Teachers were asked to familiarize themselves with the first “personal profile” and form an impression of the child. When the teacher announced their readiness, the “personal profile” was taken away and Questionnaire 1 was issued. Therefore, teachers consistently familiarized themselves with all six profiles and filled in six questionnaires, one for each student. After that, the teacher was issued with Questionnaire 2 and the experiment ended.

Personal profiles were issued in strict sequence: one of the experimental profiles was always shown second, and the second one was always the sixth. The two experimental profiles were randomly swapped between teachers in positions two and six, with some teachers receiving the experimental majority student profile in position two, some in position six and the same for the minority profile. This was done in order to eliminate the effect of information from the non-experimental personal profiles on the perception of the experimental profiles.

A pilot study was conducted to make sure that the teachers do not notice the identical content of the two experimental profiles. Four subjects participated in the entire experiment from beginning to its end. None of the subjects during the pilot study noticed that two from the six profiles were identical (except the characteristics that had been manipulated - ethnicity and migration experience of students).
We analyzed the responses of teachers with respect to only the two experimental profiles.

4 Results
4.1 Perceptions of the ethnic minority and majority students: differences in stereotypes and expectations of teachers

In the first stage of the analysis we created generalized scales measuring stereotype dimensions and teacher expectations' dimensions by calculating the arithmetic means of the initial variables. This resulted in 10 scales (5 for minority and 5 for majorities students):

1) “Warmth” scale (good natured, friendly, sincere, warm, Cronbach’s alpha = 0,68 for majority student and Cronbach’s alpha = 0,83 for minority student);

2) “Competence” scale (capable, intelligent, efficient, confident, Cronbach’s α= 0,35 for majority student and Cronbach’s alpha = 0,71 for minority student);

3) Teacher expectations about performance which included sub-scales measuring teachers’ notions about students’ performance (prospective grades in 1) mathematics, 2) Russian language, 3) literature and 3) English language, as well as two Regalla’s sub-scale 4) “this student will perform academically as well as their middle-class peers”, and 5) “the student is capable of at least average academic performance in all subjects”, Cronbach’s alpha = 0,39 for majority student and Cronbach’s alpha = 0,84 for minority student);

4) Teacher expectations about abilities which included sub-scales measuring teachers’ notions about students’ abilities (the remaining six Regalla’ scales, Cronbach’s alpha = 0,58 for majority student and Cronbach’s alpha = 0,69 for minority student);

5) The resulting overall measure of teacher expectations which included all expectation sub-scales included in two expectation variables above (Cronbach’s alpha = 0,65 for majority student and Cronbach’s alpha = 0,82 for minority student).

While for minority student all Cronbach's alpha could be interpreted as acceptable, low alpha rates for majority student technically indicate unreliable scales. However, low alpha rates for all scales in case of teacher evaluating of the majority student indicate low internal consistency of the variables, which may reflect the outgroup covariation effect supported by the research of Patricia W. Linville, Gregory W. Fischer and Carolyn Yoon (1996). According to the effect, people tend to perceive greater covariation among the features of outgroup members compared with perception of ingroup members. Moreover, low alpha for the generalized scales associated with two dimensions of stereotype in case of the majority student can signify that teachers do not perceive the student in stereotypical way, whereas in case of the minority student teachers’ stereotypes activate and that can be why the stereotype content model find support in this case. Nevertheless, using Cronbach’s alpha as a reliability estimate and as a
A measure of internal consistency suffer from major problems (Field, 2013). For example, the value of alpha depends on the number of items, which constitute the scale and therefore alpha increases as the number of items increases.

Then we studied the differences in teacher perceptions of the ethnic minority and majority students and expectations about them. Comparative analysis using the paired-samples t-test showed no significant differences in evaluating teachers of the ethnic minority and majority students on the “warmth” and “competence” scales as well as the scale measured expectations about abilities. The null hypothesis can be taken that there are not any significant differences in the teacher stereotypical perception of students with different ethnic and immigrant backgrounds on both warmth and competence scales (t=0, p=1; t=0, p=1) (Table 1).

On average, teachers held significantly lower expectations about performance of the minority student (M=3,45, SE=0,09) compared with the majority student (M=3,85, SE=0,05). This difference, 0,41, BCa 95% CI [0,18, 0,63], was significant t(33)=3,79, p=0,01 and represent a large-sized effect, r=0,55. There was also a significant difference (0,22, BCa 95% CI [0,01, 0,43], t(33)=2,16, p=0,04) in the resulting overall measure of teacher expectations in respect to the minority student (M=3,38, SE=0,08) compared to the majority student (M=3,60, SE=0,05) that also represented a medium-sized effect, r=0,35.

Table 1. Means of stereotypes' and expectations' scales, values of t, effect sizes and the results of the bootstrapping

<table>
<thead>
<tr>
<th></th>
<th>M Majority (SE)</th>
<th>M Minority (SE)</th>
<th>t (33)</th>
<th>r</th>
<th>BCa 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>warmth</td>
<td>3,75 (0,09)</td>
<td>3,75 (0,10)</td>
<td>0 (p=1,00)</td>
<td>0</td>
<td>[0,18, 0,19]</td>
</tr>
<tr>
<td>competence</td>
<td>3,64 (0,07)</td>
<td>3,64 (0,09)</td>
<td>0 (p=1,00)</td>
<td>0</td>
<td>[0,21, 0,22]</td>
</tr>
<tr>
<td>expectations about performance</td>
<td>3,85 (0,05)</td>
<td>3,45 (0,09)</td>
<td>3,79 (p=0,01)</td>
<td>0,55</td>
<td>[0,18, 0,63]</td>
</tr>
<tr>
<td>expectations about abilities</td>
<td>3,34 (0,08)</td>
<td>3,32 (0,09)</td>
<td>0,21 (p=0,84)</td>
<td>0,04</td>
<td>[0,21, 0,26]</td>
</tr>
<tr>
<td>general expectation scale</td>
<td>3,60 (0,05)</td>
<td>3,38 (0,08)</td>
<td>2,16 (p=0,04)</td>
<td>0,35</td>
<td>[0,01, 0,43]</td>
</tr>
</tbody>
</table>

In the next step of the analysis we used the Wilcoxon test for comparing the teacher expectations of the ethnic minority and majority students measured by the expectation sub-scales. The results of the comparison of teachers’ evaluations obtained by the sub-scales of expectations revealed differences in most cases. Predicting the students’ performance at the end of the school year for four subjects (mathematics, Russian language, English language and literature), teachers believed that minority student would study worse than majority one (Table
2). The prospective grades of the minority student are significantly lower than ones of the majority student, despite the fact that in the course of the experiment the teachers were shown an identical school progress record, according to which students at the end of the second grade got a mark "4" for Russian language, literature and foreign languages as well as "5" for mathematics. In the Russian education system the following grading scheme is used: “5” (excellent), “4” (good), “3” (satisfactory), “2” (fail).

Table 2. Means of expectation sub-scales (grades), values of z and effect sizes

<table>
<thead>
<tr>
<th>How well he will study in mathematics at the end of the third grade</th>
<th>M Majority (SD)</th>
<th>M Minority (SD)</th>
<th>z</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,41 (0,56)</td>
<td>4 (0,79)</td>
<td>-2,56 (p=0,01)</td>
<td>-0,31</td>
</tr>
<tr>
<td>何 well he will study in Russian language at the end of the third grade</td>
<td>3,65 (0,49)</td>
<td>3,39 (0,52)</td>
<td>-2,68 (p=0,01)</td>
<td>-0,32</td>
</tr>
<tr>
<td>何 well he will study in literature at the end of the third grade</td>
<td>4,00 (0,43)</td>
<td>3,56 (0,66)</td>
<td>-3,27 (p=0,00)</td>
<td>-0,40</td>
</tr>
<tr>
<td>何 well he will study in English language at the end of the third grade</td>
<td>3,79 (0,41)</td>
<td>3,44 (0,61)</td>
<td>-3,21 (p=0,00)</td>
<td>-0,39</td>
</tr>
</tbody>
</table>

Teachers also indicated that these two students in general are different in progress and believe that the "locals" study significantly better than "migrants":

Who study better than other students: (Me1=3, Me2=5, z=-4,66, p=0,00, r=-0,57).

When teachers ranked six students whose personal profiles were shown in the experiment, 56% of teachers put the majority student on the 1st – 3rd places and 100% - on the 1st – 4th places, while 85% of teachers put the minority students on 4th – 6th places and 3% of teachers placed him on the 1st – 2nd places. Only 3 teachers from 34 believed that the minority student would study better than the majority, others suggested the opposite.

The analysis also showed the presence of significant differences when comparing the evaluations assigned to students in four items of Regalla (Table 3). Teachers assessed student marked as minority significantly lower according to the three items, however, in one case, we observed the opposite effect: the teachers evaluated "migrant" significantly higher on the item “works very hard to do their best in class”. Statistically significant differences were not found when comparing the evaluations assigned to the rest of the Regalla' scales.
Table 3. Means of expectation sub-scales (Regalla), values of z and effect sizes

<table>
<thead>
<tr>
<th>Expectation Sub-scale</th>
<th>M Majority (SD)</th>
<th>M Minority (SD)</th>
<th>z (p=0.01)</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>This student will perform academically as well as their middle-class peers</td>
<td>3.44 (0.79)</td>
<td>2.97 (0.94)</td>
<td>-2.66</td>
<td>-0.32</td>
</tr>
<tr>
<td>This student is capable of at least average academic performance in all subjects</td>
<td>3.82 (0.63)</td>
<td>3.41 (0.82)</td>
<td>-2.22 (p=0.04)</td>
<td>-0.27</td>
</tr>
<tr>
<td>This student is capable of learning the material presented in class</td>
<td>3.79 (0.59)</td>
<td>3.41 (0.89)</td>
<td>-2.20 (p=0.03)</td>
<td>-0.27</td>
</tr>
<tr>
<td>This student works very hard to do their best in class</td>
<td>2.85 (0.82)</td>
<td>3.18 (0.72)</td>
<td>-2.01 (p=0.04)</td>
<td>-0.24</td>
</tr>
<tr>
<td>This student has the skills necessary to be successful in school</td>
<td>3.53 (0.86)</td>
<td>3.38 (0.85)</td>
<td>-0.93 (p=0.35)</td>
<td>-0.11</td>
</tr>
<tr>
<td>This student is motivated to do their best in class</td>
<td>3.15 (0.89)</td>
<td>3.32 (0.81)</td>
<td>-0.98 (p=0.33)</td>
<td>-0.12</td>
</tr>
<tr>
<td>This student will not quit school in high school</td>
<td>3.65 (0.81)</td>
<td>3.44 (1.02)</td>
<td>-0.94 (p=0.35)</td>
<td>-0.11</td>
</tr>
<tr>
<td>This student thinks that education is very important</td>
<td>3.09 (0.71)</td>
<td>3.18 (0.90)</td>
<td>-0.43 (p=0.67)</td>
<td>-0.05</td>
</tr>
</tbody>
</table>

These results demonstrate the heterogeneity of expectations of teachers: while no significant differences were found in four sub-scales, on the other four scales they exist and demonstrate the presence of both lower and higher expectations for the student with external migrant backgrounds in comparison with the majority student. Moreover, the expectations of teachers which are operationalized through measurement of teachers’ notions about students’ performance are underestimated in relation to the ethnic minority student compared to the ethnic majority, while expectations measured as teachers’ notions about student’s abilities are both favorable and unfavorable, which is consistent with other studies of teachers’ expectations about minorities and majorities students (King Lewis, 2014; Regalla, 2013).

4.2 Analysis of the relations between stereotypes and expectations of teachers

The Table 4 shows Spearman’s correlation coefficients for all created scales for majority students. According to correlation analysis neither “warmth”, nor “competence” scale is statistically related to expectations scales, measuring teacher expectations about performance, teacher expectations about abilities and the general expectation scale.

Table 4. Spearman’s correlation coefficients for all created variables for the majority student

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>warmth</td>
<td>1</td>
<td>-0.08</td>
<td>0.02</td>
<td>0.12</td>
<td>0.11</td>
</tr>
<tr>
<td>competence</td>
<td>1</td>
<td>0.19</td>
<td>0.24</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>expectations about performance</td>
<td>1</td>
<td>0.28</td>
<td>0.68*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>expectations about abilities</td>
<td>1</td>
<td>0.87*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>general expectations</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p=0.00
The same analysis for the minority student reveals a significant relationship between the “competence” scale and all the expectations scales (p=0.00) (Table 5). “Warmth” scale is insignificantly related to “competence” (r=0.21, p=0.23), “expectations about performance” (r=0.18, p=0.31), “expectations about abilities” (r=0.25, p=0.16) and the general expectations scale (r=0.18, p=0.30).

Table 5. Spearman’s correlation coefficients for all created variables for the minority student

<table>
<thead>
<tr>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>warmth</td>
<td>1</td>
<td>0.21</td>
<td>0.18</td>
<td>0.25</td>
<td>0.18</td>
</tr>
<tr>
<td>competence</td>
<td></td>
<td>1</td>
<td>0.59*</td>
<td>0.65*</td>
<td>0.74*</td>
</tr>
<tr>
<td>expectations</td>
<td></td>
<td></td>
<td>1</td>
<td>0.38**</td>
<td>0.86*</td>
</tr>
<tr>
<td>performance</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0.76*</td>
</tr>
<tr>
<td>abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*p=0.00
**p=0.03

In accordance with the results of the analysis, teacher expectations regarding the minority student is not related to their perception of his warmth, but related to the perception of his competence - the more competent the minority student is perceived, the higher teacher expectations, measured in different ways - both beliefs about how well he will study and which abilities is needed for the education his possess. These results partially confirm our hypothesis that when studying the relationship between teacher expectations and stereotypes, it is necessary to take into account the content of stereotypes and its homogeneity.

For the next stage of the analysis, stereotypes and expectations sub-scales were recoded. We have created new variables for all sub-scales measuring stereotypes and expectations - 21 new variables. For each pair of variables (variable “majority student”/ variable ”minority student”) new variables were created, which reflects the existence of differences in the evaluation of minority and majority students by each teacher in each scale. Thus, if a teacher evaluates the majority student higher than the minority, it is assigned a value of "1" on a new variable, if on the contrary a teacher evaluates the minority student higher than the majority, the value of the variable is "-1", and if a teacher evaluated both students alike, it is assigned a value of "0". Variables, finally created, reflect the orientation of stereotypes and expectations of teachers, their biases. While these scales measure the difference between the expectations of teachers in regard to the students, not the expectations, we, for convenience, will call them using the terms proposed above. In further analysis, we will use only the new variables.

Then, we created generalized variables from these new variables by calculating the arithmetic means of them: “warmth” (Cronbach’s alpha = 0.65), “competence” (Cronbach’s alpha = 0.66), teacher expectations about performance (Cronbach’s alpha = 0.84), teacher
expectations about abilities (Cronbach’s alpha = 0.64), the resulting overall measure of teacher expectation (Cronbach’s alpha = 0.84).

For the resulting overall measure of teacher expectation and the measure of teacher expectations about performance, the items, which were included in these variables, were z-scored, because the items’ scores have different dimensions. The Table 6 shows Spearman’s correlation coefficients for all new created scales.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>warmth</td>
<td>1</td>
<td>0.11</td>
<td>0.00</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>competence</td>
<td></td>
<td>1</td>
<td>0.55*</td>
<td>0.66*</td>
<td>0.62*</td>
</tr>
<tr>
<td>expectations about performance</td>
<td></td>
<td></td>
<td>1</td>
<td>0.56*</td>
<td>0.90*</td>
</tr>
<tr>
<td>expectations about abilities</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0.83*</td>
</tr>
<tr>
<td>general expectation scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

"Competence" is statistically related to all the scales of expectations (p = 0.00). There was no significant relationship between “warmth” and “competence” (r = 0.11, p = 0, 54), “warmth” and expectations about abilities (r = 0.02, p = 0.91), “warmth” and the general expectation scale (r = 0.02, p = 0.91). In addition, the null hypothesis can be taken that "warmth" is not related to expectations about performance (r = 0.00, p = 0.99). The analysis once again confirms our hypothesis about the relationship between the teachers’ expectations and the “competence” dimension but not “warmth” dimension.

**Discussion**

This study contributes to the debate on the relationship of teacher expectations and stereotypes in relation to students with different migrant backgrounds, by including the stereotype content model in the analysis.

We examine whether teacher expectations are related differentially to their perceptions of warmth and competence of ethnic minority student. The results confirmed our hypothesis that the expectations of teachers positively related to perceptions of competence and were not related to perceptions of warmth. This study, in our opinion, provides a new way to answer the question whether expectations are related to stereotypes. We propose to take into consideration the fact that, in accordance with the stereotype content model, stereotypes of the different groups are not positive or negative, but differ in the two dimensions of stereotypes - warmth and competence (Cuddy et al, 2009; Fiske, 2015; Fiske et al, 2002; Lee & Fiske, 2006). According to this, people perceive migrants competent to a certain degree and in a different degree of warmth (Lee & Fiske, 2006). We studied teacher perceptions of the student-migrant
from Central Asia as a typical ethnic minority student for St. Petersburg schools. The research would benefit if there had been an opportunity to explore the peculiarities of teacher perception of not only the student-migrant from Central Asia, but also from other migrant groups that are assigned to different clusters, based on warmth and competence scores.

Migrants from Central Asia are the group that has been perceived negatively by Russians for many years. Various opinion surveys have showed that they are perceived as people with low competence (see, for example, Levada-Center, 2013). The same trend is observed in relation to migrant children in the context of Russian schools - teachers perceive them as less competent than Russian students (Akifyeva, 2015; Alexandrov et al., 2012). We believe that our research confirms this tendency, but the results have turned out to be more complicated.

Looking at the stereotype contents, there are not any statistical differences in the evaluation of the minority and the majority students by teachers on the warm and competent scales. Since teachers judged equally two experimental profiles from six, which were shown, it can be assumed that some of the same information from the profiles had an influence on the teachers' judgments about these children. The testimonials indicated which personal qualities students had from the point of view of teachers from their previous schools, and it is possible that it was the information on which teachers relied when forming the students’ images. In previous experimental studies it has shown that teachers' judgments about ethnic minorities depend on the type of information, which the teacher received about the student: expectation-confirming or expectation-disconfirming information (Glock, 2016; Glock & Krolak-Schwerdt, 2013). It is possible that the results were influenced by what type of information (confirming or disconfirming) was in the testimonials. If the information was disconfirming, evaluations of teachers do not probably reflect their stereotypes, which they may hold. Following the Glock and Krolak-Schwerdt, we can assume that the information on the personal qualities of a student that teachers receive from external sources plays an important role at least in the formation of their first impression of the student. However, it is necessary to conduct additional research in order to make sure that the information in the testimonials was that, which had an impact on the fact that teachers evaluate students equally. Additionally, it is necessary to take into account the fact that the small sample size does not allow to conclude that the differences are not random.

This study showed the relevance of the problem of correct expectations of teachers in relation to students with different ethnic backgrounds in the context of Russian schools. In contrast to the teacher perceptions of the warmth and competence of students, information about the ethnicity of the child influences their expectations. Teacher expectations about the performance of minority students were always unfavorable compared with expectations about
the performance of minority students. Given the fact that we presented to teachers identical records within both profiles, it can be concluded that forming judgments about the potential performance of children with a migration background, teachers take into account the ethnicity of the children, which is an important factor that determined the significant differences in the forecasts of performance of the students of different ethnicities. These results are consistent with the results of the experimental study in which researchers manipulated ethnicity in the profile of students, leaving unchanged other information, including grades, and showed that inservice and preservice teachers more poorly memorized grades from the profiles of ethnic minority students and, when making school placement recommendations for them, they paid less attention to information about their grades than for ethnic majority students (Glock et al., 2015).

Our study also demonstrated that teacher expectations about the abilities of minority and majority students, which include teacher beliefs about students’ educational skills, attitudes and motivation, capacity for work in school class, are mixed. Teachers believed that the minority student work harder to do their best in class and is less capable of learning the material presented in class than the majority student. It indicates that the expectations of teachers with regard to the minority students can be both favorable and unfavorable, that confirms the findings of some studies (King Lewis, 2014; Regalla, 2013). These results raise the question about definition and operationalization of teacher expectations. Teacher expectations are often defined as teacher perceptions of academic success as well as of the abilities of students (Rubie-Davies, 2008; Van den Bergh et al, 2010), which is reflected in the operationalization of the phenomenon, in particular through measures, which include questions about school achievements and the abilities of students (van den Bergh et al., 2010).

Researchers most often have focused on only teacher beliefs about school achievement of students (McKown & Weinstein, 2008; Peterson et al., 2016; Rubie-Davies, Flint, & McDonald, 2012; Timmermans, de Boer, & van der Werf, 2016). Meanwhile, multiple operationalizations of teacher expectations utilized even in earlier studies (Bognar, 1983; Hoge, 1984; Williams, 1976). Williams proposed a two-factor model of teacher expectations, which included cognitive expectations - "expectations for student performance in academic (instruction) activities" and normative expectations - "expectations for student adherence to the norms of classroom behavior" (Williams, 1976: 225), operationalized as ratings on students' reliability, cooperation and industry. It has been shown that teachers' cognitive expectations have a positive effect on teachers' normative expectations about female students and a negative effect on teachers' normative expectations about male students. These results indicate that teachers can hold a mixture of favorable and unfavorable expectations with respect to students
with specific attributions (gender, in this case). Thus, there are studies which indicate that in some cases, expectations may be mixed, but more research is required, which would explain all the various cases.

References

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