# Social Exclusion among Students 

The Role of Ethnicity, Classroom Ethnic Heterogeneity and Self-Esteem

T. Koolen (4228294) \& B.R. Kamperman (4285301)<br>Supervisor: M. Simsek<br>Second Examiner: L. Norbutas<br>Department of Sociology - Faculty of Social and Behavioral Sciences<br>Utrecht University, the Netherlands<br><br>Universiteit Utrecht


#### Abstract

In this article we explore the relation of ethnicity, classroom ethnic heterogeneity and selfesteem with social exclusion among students in the Netherlands. We build upon the social misfit theory and the power imbalance theory. Additionally, we add the concept of selfesteem. A linear probability model is used with the Dutch data of CILS4EU wave 1 (2010/2011). No significant results were found for the social misfit or the power imbalance theories. Results do, however, show that self-esteem is negatively related to victimization, indicating that higher levels self-esteem do lower victimization rates significantly.


## Keywords

Social exclusion, rejection, isolation, victimization, ethnic heterogeneity, self-esteem

## Introduction

Over the past few decades more attention has been paid to the increasing immigration waves and the social integration of immigrants in the host country. For adolescents with a migration background, schools are one of their first avenues to integrate with the host society's culture. Subsequently, interethnic school climates are of growing concern as a negative climate can hinder proper integration and in worst case scenarios even lead to forms of victimization and exclusion (Agirdag, Demanet, Van Houtte \& Van Avermaet, 2011; Graham, 2006; Plenty, Jonsson, 2016; Verkuyten \& Thijs, 2002a). These adolescent years, most time of which is spent in school classes, are important to develop positive relations with peers that can provide social support and that can stimulate one's sense of identity as well as one's self-worth (Plenty \& Jonsson, 2016). Especially for immigrant youth, the repercussions of social exclusion can be detrimental as they have fewer avenues to familiarize with the host country's culture and language through their peers if they are ostracized (Plenty \& Jonsson, 2016). Furthermore, school satisfaction is of importance because of its effect on psychological wellbeing and a student's school engagement, which can contribute to this more positive self-view (Verkuyten \& Thijs, 2002b). Because of the rich migration history of the Netherlands, Dutch school classes render good context to study this interethnic social issue. We chose to study the three largest immigrant groups in the Netherlands, which are Turks, Moroccans and Surinamese. Accordingly, the main question of this study is: to what extent do ethnicity, classroom ethnic heterogeneity and self-esteem influence social exclusion among Dutch, Turkish, Moroccan and Surinamese students in the Netherlands?

So far previous research on social exclusion has focused on theories such as the social misfit and power imbalance theory, either separately or in conjunction with one another. The misfit theory states that individuals can be rejected by their peers if their behavior is considered as deviant from the norm (Wright, Giammarino \& Parad, 1986). This theory has also been applied to the classroom context and focused on student misfits through ethnic characteristics (Bellmore, Witkow, Graham \& Juvonen, 2004; Jackson, Barth, Powell, \& Lochman, 2006 , Plenty \& Jonsson, 2016). The power imbalance theory affirms that there is an imbalance of power when an ethnic group is much larger numerically than the other ethnic group(s). Therefore, the larger group possesses more 'social power', than the numerical minority. This has also been researched in schools previously. However, results have been slightly mixed. Plenty and Jonsson (2016) found results closest to the imbalance thesis, i.e. both natives and non-natives are more likely to be victimized if they are with fewer peers in classrooms. Another study has found that ethnically mixed classes indeed yield lower levels
of victimization for either group (Vervoort, Scholte \& Overbeek, 2010). However, a separate study found that for a higher concentration of non-natives in school non-natives suffer from less victimization. They found that for natives there appears to be no relation between the disproportionate amount of non-natives in school and the degree of victimization (Agirdag et al., 2011). Besides the possible effects of the varying distributions of immigrants and natives in school classes there is another concept that may explain the degree of social exclusion: that of self-esteem. An individual's assessment of their self-esteem may go two ways. Those with lower levels of self-esteem may be victimized more often as they are more sensitive to bullying (Egan \& Perry, 1998; Sharp, 1996). On the other hand those with higher levels of self-esteem are able to respond to victimization more appropriately (Sharp, 1996). For some, self-esteem may serve as a defensive response to fend off direct forms of victimization (Blackhart, Nelson, Knowles and Baumeister, 2009).

Mixed evidence on social exclusion leads us to believe that questions remain regarding possible protective factors. Furthermore, some studies focussed on the differing effects of classroom composition on social exclusion by natives and non-natives, as for example Agirdag et al. (2011), Plenty and Jonsson (2017) and Vervoort and Scholte (2010). However, as briefly discussed above, these studies dichotomized ethnicity which in turn may generalize non-natives unnecessarily. Therefore, the current study will focus on separate ethnic backgrounds and how the effect of ethnic heterogeneity differs for each of these groups. One study in the Netherlands, that of Verkuyten and Thijs (2002a), did separate ethnicities and classroom heterogeneity and included them as interactions in their analyses, but only little significant results were found. Hence we propose self-esteem as an addition to previous studies as it may be a possible defense mechanism even if the misfit effect and power imbalance are found to be in effect.

Past studies focused on different aspects of social exclusion. Plenty and Jonsson (2016) distinguish between three forms, which we will also study. Firstly rejection, which is measured by negative peer nominations. The second is isolation, which follows when no peer nomination is received. The last aspect is victimization, which may involve being bullied, feeling scared of peers or of being teased. For our study we make use of data of the first wave of the Dutch part of Children of Immigrants Longitudinal Survey in Four European Countries (CILS4EU).

## The Dutch context

The Netherlands has a rich history of labor migration. After World War II, the Dutch government actively recruited manpower outside the Netherlands. Also in the aftermath of the war the Netherlands welcomed large migrant groups from Indonesia, the Moluccas and Surinam with respect to the colonization history. For the Surinamese specifically, the largest waves of migrants came after their independence was declared in 1975 (de Lange, 2007). Subsequently, large groups of labor migrants came to the Netherlands. Initially, mainly from Spain and Italy. Later, in the sixties, the labor migration began from other countries around the Mediterranean, among which Turkey and Morocco. Most of the labor migrants from Spain and Italy returned to their home country after a few years. The migration processes of Turks and Moroccans in the Netherlands went differently, however. Instead of returning to their homeland, the migration process was followed by family reunification or family formation (Centraal Bureau voor de Statistiek, 2000).

In the years that followed, the Netherlands became an increasingly multicultural society as a result of these (labor) immigrants staying permanently. The Turkish, Moroccan and Surinamese immigrants grew to be the largest ethnic groups This is reflected in the youth population of those up to and including 25 years. In the years between 2000 and 2011, the number of adolescents with a Turkish background grew by almost 10,000 . The total number of Turkish adolescents rose to 165,183 thereby representing $14 \%$ of this age group with a migration background. For adolescents with a Moroccan background, this is slightly higher: respectively 27,000 and 171,214 representing 14.4\% of the adolescent population (Centraal Bureau voor de Statistiek, 2018). Not only did the fact that youth of Turkish or Moroccan backgrounds started to form an increasing part of Dutch school classes, they were also relatively 'visible' because of their Muslim culture which most of them wanted to preserve. The Surinamese adolescents numbers, however, declined over this same time period. However, they were still the third largest immigrant group in The Netherlands, representing $10.29 \%$ of adolescents under 25 (Centraal Bureau voor de Statistiek, 2018). What made these Surinamese 'visible' was primarily based upon their skin color (Verkuyten \& Thijs, 2002a).

Subsequently, due to the fact that a growing number of Dutch school classes consisted of students of mixed backgrounds, Dutch primary schools have been legally obliged to invest in a multicultural curriculum since 1985. The overall aim was to encourage interethnic understanding and appreciation, to boost the process of developing positive interethnic interactions and to counter racism and discrimination (Verkuyten \& Thijs, 2002a). Although at first there were no substantive guidelines (Kloosterman, 1991), in 2007 an independent
board provided guidelines on how to establish a climate inclusive of diversity in Dutch schools (Onderwijsraad, 2007). Although encouraging interethnic contact in schools could lead to more amicable intergroup attitudes, it could also encourage negative contact (Allport, 1954). If a multicultural curriculum is implemented correctly it is expected to yield more positive outcomes for both natives and immigrants (Bigler, 1999). It can be seen that these multicultural curricula underpin the foundation in search of managing positive intergroup attitudes. The classroom ethnic heterogeneity and the existing attitudes among peers are indicators that may reflect how well different curricula are implemented and bring about the desired effects.

## Theory

In the following paragraph the theoretical framework is outlined. First, the social misfit theory and the power imbalance theory are explained in conjunction with one another, followed by two hypotheses, the second of which consists of two parts. Then self-esteem in relation to victimization will be discussed, followed by the third hypothesis.

## Social Misfits and Social Exclusion

For immigrant groups it can be hard to get used to what the perceived norms and values are of a host society. Especially for the youth that actively interact with their native peers in completely new school environments. It is very apparent to both native and immigrant youth that they are not alike at face value and this may lead to some unwanted consequences. These feelings of dissimilarity are further posited by what Wright et al. (1986) coined as the 'misfit effect'. Simply put their thesis revolves around the fact that certain children who do not fit the description of a majority group's norms, appearance, general behavior or ethnicity may be labeled as outsiders or a 'misfits' (Wright et al., 1986). They found empirical support that in highly aggressive groups, where acting aggressively prevailed as the group norm, social status was not related to the amount of aggressive behavior shown. By contrast, in the low-aggressive groups, where acting non-aggressively prevailed as the group norm, the amount of aggressive behavior was negatively related to social status. This dissimilarity in attitudes is what causes the so-called misfit effect. According to Boivin et al. (1995), the latter, low-aggressive group, is most similar to regular school classes. The misfit effect has been subject of many studies, in different context situations, and has been found to be substantial (Boivin et al., 1995; Chang, 2004; Graham, \& Juvonen, 2002; Sentse, Scholte, Salmivalli \& Voeten, 2007; Wright et al., 1986). On a national level ethnic minorities in
general are likely to be misfits due to their ethnic characteristics, which in turn may also translate to smaller contexts such as classrooms. Therefore some studies also included ethnic diversity (or lack thereof) in classrooms as a factor through which dissimilarity can be experienced. For example, Jackson, et al. (2006) found that black children's evaluation improved when their representation in a classroom increased, thus when the norm of being white was less important. Or for example Plenty and Jonsson (2016), who found that immigrant youth experience more victimization in classes with few other immigrants. To reiterate, those who are more deviant from prevailing group norms, behavioral patterns, appearance and ethnicity are more likely to be repulsed by others that conform to the generally accepted norms.

## Excluded due to an Imbalance of Power

Nevertheless, not just dissimilarities may lead to repulsion. The mere fact that an individual is part of less represented group (numerically) may create disparities. Therefore, social exclusion is more likely to appear when there is an imbalance of power in a group. Such an imbalance could appear when one group is in a numerical minority and therefore possesses less 'social power' than those that belong to the numerical majority group with regard to ethnicities represented (Agirdag et al., 2011; Graham, 2006; Juvonen, Nishina \& Graham, 2006; Plenty \& Jonsson, 2017). An imbalance of power could also give rise to feelings relating to 'us’ versus 'them' (Vervoort, Scholte \& Overbeek, 2010), reinforcing a feeling of divergence between one's own group and outsiders to their group. Once more, ethnic minorities are likely to possess less social power due to their numerical position in society at large, which in turn may translate to the smaller classroom context. Thus, it is expected that if there is a numerical imbalance within any group, those in the minority groups are more likely to be socially excluded. However, even if an individual belongs to an ethnic minority in national context it does not necessarily mean that they will always be victims. Juvonen, Nishina \& Graham (2006) found that a higher heterogeneity in a class, that is higher ethnic diversity in classrooms, is related to increased feelings of safety and social satisfaction among students. The power relations among students can be more balanced in ethnically diverse classrooms and therefore there should be less power imbalance. If there is no group with a numerical majority in the class it may reduce social exclusion among students. Agirdag et al. (2011) found significant evidence for the effect of varying levels of heterogeneity among non-native students. However, they found that native students reported less victimization with higher levels of heterogeneity in classrooms as well.

The social misfit theory in juxtaposition with the power imbalance theory suggest that one can be socially excluded for being part of an ethnic minority group or for merely being out-numbered, whereby both natives and non-natives can be subjected to the effects thereof. As mentioned previously and also found by Agirdag et al. (2011), if native students possess a numerical minority position in classes, in the society at large they still constitute the numerical majority and thus are the socially dominant group. For this reason, being the majority group in larger context may work as a compensating factor if natives find themselves in a numerical minority position in smaller contexts, such as classrooms. Thus, an effect of ethnic heterogeneity on social exclusion is expected, however it is likely to be greater for nonnative students. Thus, we hypothesize that:

## Students who belong to an ethnic minority in the Netherlands are more likely to be socially excluded in classrooms (H1)

The higher the ethnic heterogeneity in classrooms the less likely individuals are to be socially excluded (H2a)
The effect of ethnic heterogeneity is greater for all students of ethnic minority groups than for Dutch students (H2b)

## Self Esteem in relation to Victimization

Another factor that may contribute to individuals being victimized is their level of self-esteem. As it reads, self-esteem will only be related to victimization as it is the only form of an active threat to an individual's self-concept. Whereas rejection and isolation are more passive forms of exclusion by which having high self-esteem does not have similar protective value for individuals. To put it into context, high self-esteem may protect an individual from being bullied, whereas that same high level of self-esteem does not aid in them being left out of social groups.

As mentioned above, and as was put forward by Tajfel and Turner, an individual's self-concept is partly related to self-esteem. In simple terms, a self-concept is defined as what a person perceives as him- or herself. This perception is shaped by several factors such as experiencing and making sense of one's surroundings and are influenced by reinforcements by others and the assessment of one's own behavioral patterns (Shavelson \& Bolus, 1982). A A theoretical principle that Tajfel and Turner drew up is that individuals naturally strive for a stable or elevated self-esteem in order to maintain a positive self-concept (Tajfel \& Turner,
1979). Which means that having a positive self-concept translates into being more comfortable with one's own perceived identity. Having a good and stable level of self-esteem, or elevation thereof, also brings about more confidence in oneself. Thus, having a stable or an increasing level of high self-esteem can act as a protective factor to victimization (Blackhart et al., 2009). Even in the case when the self is threatened by an external factor those with higher levels of self-esteem are affected less by the threat (Sharp, 1996; Jordan, Spencer, Zanna, Hoshino-Browne \& Correll, 2003). Naturally, the other end of the spectrum also holds true, those with low levels of self-esteem are more prone to these negative externalities, i.e. forms of bullying (Egan \& Perry, 1998; Olweus, 1994, O’Moore \& Kirkham, 2001).

Therefore, it is important to evaluate what effect self-esteem has on victimization, as it may serve as a protective mechanism to aid individuals in maintaining a positive self-concept. Thus, we expect that:

Those with a higher level of self-esteem are less likely to be victimized (H3).

## Methods

This study utilizes data from the Youth in Europe Study (YES!). This survey is part of a larger international study called Children of Immigrants Longitudinal Survey in Four European Countries (CILS4EU, 2016). This survey focuses on the integration among children of immigrants in four European countries: Germany, The United Kingdom, Sweden and The Netherlands (CILS4EU, 2016). The project design concentrates on three aspects of integration that are of importance to young people's living conditions: the structural, social and cultural aspects. This study derives the data from the first wave in The Netherlands, conducted in the school year 2010/2011. In this period, the Dutch students participating in the study ( $n=4363$, $49.1 \%$ male, $50.8 \%$ female) were in third grade in secondary schools with an average age of 16.

In all participating countries, a three-stage stratified sample design was used. In the first stage schools were selected within four strata at random, based on the proportion of immigrant students in the third grade of middle school. Initially the number of partaking schools was $34.9 \%$, thus a replacement strategy was used to account for the possibility of schools not wanting to participate. Initially, when schools were drawn they were matched with another school that would fit the target group according to the four strata. If the original school wished to not participate, the matched school would serve as a replacement. In this way a large enough sample was ensured. After replacement, nearly $92 \%$ of schools in the

Netherlands participated. In the second stage, for each school, two classes were randomly selected and all of its students were asked to participate, whereby $94.5 \%$ of classes were entered. In the final stage, students within sampled classes were required to complete selfreport questionnaires, tests and sociometric nominations which took approximately 80 minutes altogether. The whole process was done voluntarily, anonymously, during school hours and yielded a $91.1 \%$ completion rate.

## Operationalization

## Outcome Variable

We start by operationalizing the three dimensions of social exclusion which will serve as our outcome variables: rejection, isolation and victimization.

Firstly, rejection, measured by negative peer nominations. The students had to answer the following question: who would you not want to sit by? Alongside the question they received the list of names of their classmates. They had the option to assign up to five peers they would not want to sit next to in class. Students that received at least three nominations of their peers are considered rejected. Cut-offs were determined by conducting a sensitivity analysis by which we varied the amount of nominations necessary to be considered rejected. The survey question indicates the definitions of rejection appropriately as it shows which peers are the odd ones out in the given classroom.

Next, isolation is quantified by students receiving no nominations in response to the question: who is your very best friend in class?, as well as: who are your best friends in class? Once more, students could nominate a single best friend and up to five for the question whom the respondents' best friends are. Isolation is constructed as a dummy variable after all nominations were summed. Those not receiving a single nomination on either question were assorted as isolated (1). These questions signify whether a student is being ignored or neglected by their peers, which is what we interpret as isolation.

And lastly, victimization is measured directly by asking how often any of the following three incidents occurred over the past month: I was bullied by other students, I was scared of other students and I was teased by other students. The students had four options to choose from, those being never, less often, once or several times a week and every day. These three questions will be recoded as dummies by grouping never and less often together as 0 and once, several times a week and everyday together as 1 . To indicate whether a student is victimized an average score is calculated over these three dummies. If a respondent has
answered once, several times a week or everyday on at least two of the questions they will be seen as victimized.

## Predictors

As our research question states, we try to uncover to what extent ethnicity, ethnic heterogeneity and self-esteem in general contribute to the varying levels of social exclusion. In addition, we are interested in the varying effects that ethnic heterogeneity has on each ethnic group we study by creating an interaction effect between these variables.

For the ethnicity variable the Dutch survey asked for the respondent's 'country of origin'. 16 nationalities were classified as possible answers. In this study only Dutch, Turkish, Moroccan and Surinamese students were explicitly operationalized, while the remaining ethnic groups are constructed as 'other'.

Ethnic heterogeneity is defined by the distribution of the ethnic background of each student in the classroom. The proportion of all five ethnic backgrounds is calculated over each unique class size. That allowed us to utilize the Herfindahl index. This index has roots in economic literature, where it is often used to measure the degree of competitive concentration among firms in relation to an industry (Trawick \& Howsen, 2006). A Herfindahl index can have scores between zero and one. An index of zero means that there is a lot of competition in a market, whereas a Herfindahl index of one means that there is only one firm and therefore no competition. However, taking into account the diverse sizes of each firm an inverted Herfindahl index should be used. By inverting the Herfindahl index the competitive diversity is measured rather than the competitive concentration. Thus, an inverted Herfindahl index of one equals a highly diverse market, or in other words, a heterogeneous market. This inverted Herfindahl index is calculated as one minus the sum of squares of the market shares of each individual firm, so it is as follows:

$$
H=1-\sum_{i=1}^{N} s_{i}^{2}
$$

With respect to ethnic heterogeneity in classrooms, the formula then should be formulated as one minus the sum of squares of the proportion $(s)$ of each ethnicity $\left({ }_{(i)}\right)$ in any given class. The closer the inverted Herfindahl index to zero the more ethnic homogenous a class is, as a value closer to one implies a more ethnic heterogeneous class.

As for self-esteem, the intent is to unveil whether there are varying effects of selfesteem on social exclusion, as well as the differences the self-esteem effect may have between Dutch, Turkish, Surinamese and Moroccan students. The survey used four statements asking the respondents the degree to which they agree through a five-point likert scale, ranging from strongly disagree (1) to strongly agree (5). These statements were I have a lot of good qualities, I have a lot to be proud of, I like myself just the way I am and I think things will go well for me in the future. The average scores were calculated of all four statements combined to indicate varying levels of self-esteem on each ethnic group. Ranging from one to five, a higher average score indicates higher levels of self-esteem.

## Control Variables

We also take a few background characteristics into the equation to control for possible confounders. These are family structure, academic performance, the father's socioeconomic status and class size.

First off, family structure checks whether the respondent lives with both his or her biological parents or not. It is important to take this into account as not living with both biological parents, for example due to divorce or separation, may greatly contribute to behavioral problems (Peterson \& Zill, 1986) and has a negative effect on the quality of life during adolescence (Amato \& Keith, 1991). This is measured by the question: do you live with both your biological parents at home?, which is answered by yes or no.

Secondly, academic performance is assessed. If a student appears to do worse in class than his/her peers they could be picked on for being 'dumber' than others. Conversely, if a student does much better than his/her peers they could be excluded due to being 'smarter' than their classmates. Both of these would be consistent with the misfit theory as they are different to the average student in class. Thus, this variable juxtaposes an individual's academic performance with the class averages. An individual's academic performance is measured by the three questions: what grades did you get in your last school report for Maths, Dutch and English? The student's individual average of these three subjects together is calculated. Next, the class averages for each school subject were calculated, which allows us to subtract class averages from the individual averages.

Socio-economic status of the father checks if a student comes from a financially advantaged background. If so, one could assume they have more material or cultural resources than those from disadvantaged backgrounds. It is interesting to check whether parents' score on social-economic position may partly account for student's position relative to his or her
peers (Lareau, 1987). This is retrieved by checking the father's current occupational prestige, based on the question: What is his job? The answers are coded following the ISCO 2008 list, which we recoded so that it sorted from lowest occupational prestige, he has never worked before, to highest occupational prestige, being Commissioned armed forces officer. We omitted these questions for mothers, as there is a possibility of immigrant mothers not working due to cultural or religious norms.

Lastly, class size is also used to account for the proportion of possible nominations one can receive by their peers. In larger classes one has more opportunities to receive a nomination than in smaller classes.

## Analysis strategy

For our analysis on rejection, isolation and victimization we conducted a linear probability model as all variables are dummy variables. Using this model enables us to fit it by simple linear regression instead of assuming nonlinearity, which is inherent to logistic regression. Interpreting non-linear interaction terms in logistic regressions would require different assumptions. By using linear probability the way of interpreting interaction terms is more in line with our linearity assumption (Mood, 2010). The predictor ethnic heterogeneity is measured as a ratio variable and self-esteem is of continuous scale. The effects of these predictors are multiplied with each ethnicity separately to calculate their interaction effects.

In total, we conducted three regressions which consist of two models each in which rejection, isolation and victimization serve as separate dependent outcome variables. The first model tests the relation between the main effects of the predictors and control variables with the outcome variables. Model two adds the interaction terms for ethnic heterogeneity to the analysis. For the victimization table, the effect of self-esteem is added.

## Missing values

Cases were deleted listwise, meaning respondents that have one or more invalid answers to the survey questions used for the variables were removed from the analysis. In Table 1 the amount of cases that are left out of the analysis by each variable are denoted in absolute numbers and in percentages between the parentheses. Overall, 1600 ( $33.77 \%$ ) respondents were left out of data resulting in 3138 respondents in total for the analysis.

Table 1
Descriptives Table ( $N_{\text {total }}=3138$ )

|  | N | N\% | Min | Max | M | Sd | Missing (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Predictors |  |  |  |  |  |  |  |
| Ethnicity |  |  |  |  |  |  |  |
| Dutch | 1955 | 62.30 |  |  |  |  | 525 (21.7) |
| Turkish | 175 | 5.58 |  |  |  |  | 83 (32.17) |
| Moroccan | 158 | 5.04 |  |  |  |  | 103 (39.46) |
| Surinamese | 141 | 4.49 |  |  |  |  | 83 (37.05) |
| Other | 709 | 22.59 |  |  |  |  | 297 (29.52) |
| Ethnic Heterogeneity |  |  | 0 | . 76 | . 46 | . 17 | 509 (10.74) |
| Self-Esteem |  |  | 1 | 5 | 2.07 | . 56 | 443 (9.35) |
| Outcome variables |  |  |  |  |  |  |  |
| Rejection |  |  |  |  |  |  | 1488 (32.17) |
| Yes | 973 | 31.01 | 0 | 1 | . 31 |  |  |
| No | 2165 | 68.99 | 0 | 1 | . 69 |  |  |
| Isolation |  |  |  |  |  |  | 1600 (33.77) |
| Yes | 132 | 4.21 | 0 | 1 | . 04 |  |  |
| No | 3006 | 95.79 | 0 | 1 | . 96 |  |  |
| Victimization |  |  |  |  |  |  | 1600 (33.77) |
| Yes | 3022 | 96.30 | 0 | 1 | . 96 |  |  |
| No | 116 | 3.70 | 0 | 1 | . 04 |  |  |
| Control variables |  |  |  |  |  |  |  |
| Gender |  |  |  |  |  |  | 1185 (27.41) |
| Male | 1578 | 50.29 | 0 | 1 | . 50 |  |  |
| Female | 1560 | 49.71 | 0 | 1 | . 50 |  |  |
| Family structure |  |  |  |  |  |  | 1170 (27.16) |
| Biological parents | 2416 | 76.99 | 0 | 1 | . 77 |  |  |
| Other | 722 | 23.01 | 0 | 1 | . 23 |  |  |
| Academic performance |  |  | -4.67 | 2.14 | . 00 | . 69 | 906 (19.12) |
| Socioeconomic Status |  |  | 0 | 4.70 | 2.42 | 1.22 | 466 (12.93) |
| Father |  |  |  |  |  |  |  |
| Class size |  |  | 4 | 30 | 21.94 | 5.22 | 1148 (2678) |

## Results

Table 1 shows the descriptive statistics of the variables used in the analyses. Of the total sample, the majority - 1955 respondents - are of Dutch descent (62.3\%). Furthermore, 175 Turkish students, 158 Moroccans and 141 Surinamese respondents were sampled, representing approximately $6 \%, 5 \%$ and $4 \%$ of the sample size respectively. The remaining $709(22.59 \%)$ students are sampled as other and comprise several other nationalities. Among all school classes the ethnic heterogeneity differed greatly. A few classes were completely homogeneous, whereas the single most heterogeneous class in the sample had an invertedHerfindahl proportion of .76 . On average classes were $46 \%$ heterogeneous. Irrespective of the
effect of heterogeneous and homogeneous classes on the degree of exclusion, student's selfesteem was measured as well. The scale of self-esteem, ranging from 1-5, gave us an average rating of 2.07. Given due consideration of these measures when related to the three dimensions of social exclusion, 973 ( $31.01 \%$ ) of the students were rejected, $132(4.21 \%)$ were considered isolated and 3022 ( $96.30 \%$ ) felt victimized. The sample's class size had quite a large range with the smallest class only consisting of 4 students and the largest classes having 30. The distribution of boys and girls was quite proportionate with $50.29 \%$ boys and $49.71 \%$ girls in the sample. Assessing individual academic performance against the average class performance, on average students scored .003 above the class average. However, the scores do range fairly much. From scoring as low as approximately 4.7 points below the class average some students score 2 points above the mean score at maximum. Most of these students lived with their biological parents (76.99\%), what's more the socioeconomic status of fathers is nested fairly close to the halfway point of the measure's range. However, the measure shows a high standard deviation, indicating that socioeconomic status varies quite considerably in the data.

Table 2
Linear probability models on social exclusion ( $N_{\text {total }}=3138$ )

|  | Rejection |  | Isolation |  | Victimization |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Constant | . 082 | . 069 | .102*** | .111*** | 1.000*** | 1.004*** |
|  | (.048) | (.052) | (.021) | (.023) | (.025) | (.026) |
| Ethnicity |  |  |  |  |  |  |
| Dutch | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Turks | . 050 | . 062 | . 005 | -. 002 | . 006 | . 015 |
|  | (.039) | (.043) | (.017) | (.019) | (.016) | (.018) |
| Moroccans | . 020 | . 037 | . 031 | . 033 | . 006 | . 011 |
|  | (.040) | (.045) | (.018) | (.020) | (.017) | (.019) |
| Surinamese | -. 033 | -. 032 | . 016 | . 012 | . 024 | . 028 |
|  | (.042) | (.043) | (.018) | (.019) | (.017) | (.018) |
| Other | -. 004 | . 000 | . 017 | . 016 | . 001 | . 000 |
|  | (.021) | (.022) | (.009) | (.009) | (.009) | (.009) |
| Ethnic Heterogeneity | -. 043 | . 046 | -. 022 | -. 079 | -. 010 | -. 026 |
|  | (.055) | (.120) | (.024) | (.052) | (.023) | (.049) |
| Dutch*Heterogeneity | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Turks*Heterogeneity |  | -. 092 |  | . 116 |  | -. 051 |
|  |  | (.188) |  | (.082) |  | (.077) |
| Moroccans*Heterogeneity |  | -. 144 |  | -. 062 |  | . 005 |
|  |  | (.177) |  | (.077) |  | (.072) |
| Surinamese*Heterogeneity |  | . 050 |  | . 078 |  | -. 028 |
|  |  | (.235) |  | (.102) |  | (.096) |
| Other*Heterogeneity |  | -. 151 |  | . 093 |  | . 065 |
|  |  | (.195) |  | (.085) |  | (.080) |
| Self-esteem |  |  |  |  | $-.027 * * *$ | -.028*** |
|  |  |  |  |  | (.006) | (.006) |
| Gender$(\text { male }=1)$ | .040* | .041* | . 001 | . 002 | -. 010 | -. 010 |
|  | (.017) | (.017) | (.007) | (.007) | (.007) | (.007) |
| Family structure (lives with biological parents = 1) | . 018 | . 019 | -. 009 | -. 008 | . 007 | . 006 |
|  | (.020) | (.020) | (.009) | (.009) | (.008) | (.008) |
| Academic performance | -. 015 | -. 015 | -. 008 | -. 007 | . 003 | . 003 |
|  | (.012) | (.012) | (.005) | (.005) | (.005) | (.005) |
| Socioeconomic status | -. 001 | -. 001 | . 001 | . 001 | -. 005 | -. 005 |
| father | (.007) | (.007) | (.003) | (.003) | (.003) | (.003) |
| Class size | . 010 *** | .010*** | $-.002 * * *$ | $-.002 * *$ | .001* | .001* |
|  | (.002) | (.002) | (.001) | (.001) | (.001) | (.001) |
| Adjusted $\mathrm{R}^{2}$ | . 013 | . 012 | . 004 | . 004 | . 006 | . 006 |

[^0]Primary effect of ethnicity on social exclusion
Three regressions have been performed on rejection, isolation and victimization as can be seen in Table 2 above. This part of the results will be sorted by the hypotheses starting with hypothesis 1 .

The first hypothesis states that students who belong to an ethnic minority in the Netherlands are more likely to be socially excluded in classrooms (H1). As shown in Model 1
there appear to be no significant differences in the effect of ethnicity for Turkish, Moroccan or Surinamese students relative to the Dutch students on any of the social exclusion aspects. Notwithstanding the addition of the control variables in Model 2 for rejection, isolation and victimization, no findings of any significance are found for any ethnic minority relative to native students. The coefficients, however, do seem to go into the expected relational direction. Most had positive coefficients, with the exception of Surinamese students on rejection for both Model $1(\mathrm{~b}=-.033, \mathrm{t}=-.787, \mathrm{p}=.431)$ and Model $2(\mathrm{~b}=-.032, \mathrm{t}=-.740, \mathrm{p}$ $=.459)$, and Turkish students on isolation in the Model $2(\mathrm{~b}=-.002, \mathrm{t}=-.124, \mathrm{p}=.901)$. For the other immigrant group only for rejection in Model $1(\mathrm{~b}=-.004, \mathrm{t}=-.172, \mathrm{p}=.863)$.

## Ethnic heterogeneity and the interaction effect with the ethnic groups

The second hypothesis consists of two parts, one more general proposition and the other more specifically pertaining to differences among ethnic backgrounds and the effect of heterogeneity. The first part posits that the higher the ethnic heterogeneity in classrooms the less likely individuals are to be socially excluded (H2a). In regard to the ethnic heterogeneity variable Table 2 shows that none of the findings show significant results for any form of exclusion. In spite of the insignificance of the findings, when solely looking at the regression coefficients one can notice the relation's directory, for the most part, has a negative directory. One exception is that the second model on rejection shows a positive relational direction ( $b=$ $.046, \mathrm{t}=.384, \mathrm{p}=.701$ ).

The effect of ethnic heterogeneity may influence students from particular ethnic backgrounds differently, however, as the second part of the hypothesis states that the effect of ethnic heterogeneity is larger for all students of ethnic minority groups than for Dutch students (H2b), is shown in Table 2, while using Dutch students as a reference category. The table discloses the effect that being either a Turkish, Moroccan or Surinamese student does not significantly differ from the effects that Dutch students feel with having a more ethnic heterogeneous class. If simply examining the coefficients, we can see some unexpected relations. On rejection we can see the effect for Turkish students $(b=-.092, t=-.488, p=$ .625) and Moroccans $(\mathrm{b}=-.144, \mathrm{t}=-.811, \mathrm{p}=.417)$ turned out negative. In the isolation section, again for Moroccans a negative relation is displayed ( $b=-.062, t=-.802, p=.423$ ), whereas for victimization Turks $(b=-.051, t=-.667, p=.505)$ and Surinamese $(b=-.028, t=$ $-.292, \mathrm{p}=.770$ ) exhibit this negative tendency. The other category only shows similar negative relational direction on rejection $(b=-.151, t=-.773, p=.439)$.

## High(er) self-esteem and (non-) victimized respondents

With respect to the third hypothesis on self-esteem, Those with a higher level of selfesteem are less likely to be victimized (H3) we should look solely at the victimization section of Table 2. We find that the main effect of self-esteem is significant $(b=-.025, t=-4.058, p<$ .001 ), indicating that victimization is indeed mediated by higher levels of self-esteem. This finding remains in Model 2, after adding the interaction terms, increasing ever so slightly ( $b=$ $-.028, \mathrm{t}=-4.387, \mathrm{p}<.001$ ).

## Control variables

Hardly ever have the addition of control variables facilitated any eminent changes on the main predictors, that is no unusual relational directory alterations, nor have they shown much significance among themselves, with a few exceptions.

For rejection, both gender in Model $1(\mathrm{~b}=.040, \mathrm{t}=2.449, \mathrm{p}=.014)$ and Model $2(\mathrm{~b}=$ $.041, \mathrm{t}=2.475, \mathrm{p}=.013)$ as well as class size in both Model $1(\mathrm{~b}=.010, \mathrm{t}=6.100, \mathrm{p}<.001)$ and Model $2(\mathrm{~b}=.010, \mathrm{t}=5.867, \mathrm{p}<.001)$ appeared to have significant effects. Only the main effect of ethnic heterogeneity in the rejection section inverted its relational direction from negative to positive. Looking at isolation, only class size remained significant in both Model $1(\mathrm{~b}=-.002, \mathrm{t}=-3.514, \mathrm{p}<.001)$ and Model $2(\mathrm{~b}=-.002, \mathrm{t}=-3.300, \mathrm{p}=.001)$ and the main effect ethnicity for Turkish students was altered, going from a positive relation in Model 1 to negative in Model 2. As for the last section on victimization, once more, class size is the sole significant control variable in Model $1(b=.001, \mathrm{t}=2.267, \mathrm{p}=.023)$ as well as Model 2 $(b=.001, t=2.229, p=.026)$. No eminent alterations are to be seen on the main predictors.

## Adjusted $R$ squared

The adjusted R squared will be noted for each second model as it properly indicates .what percentage of the variance on each outcome variables are explained by the independent variables altogether. Firstly, rejection Model 2 has an adjusted R squared of .012 , which indicates that the independent variables explain $1.2 \%$ of the variance on rejection. For isolation's second model, a . 004 adjusted R squared is found, showing that the independent variables explain $0.4 \%$ of the variance. Lastly, for victimization, the second model has an adjusted R squared of .006 which implies that the predictors explain $0.6 \%$ of the variance on victimization.

## Sensitivity Analysis

For our rejection outcome variable a sensitivity analysis was conducted to determine proper cut-offs for how many peer nominations one should receive in order to classify as rejected. We used 4, 5, 6 and 7 nominations as alternative cut-offs. However, the results did not differ that much insofar that any of those alternative cut-offs did not seem more valid than the cut-off used. The results of the sensitivity analysis can be found in Appendix A.

## Conclusion

Due to the increasing immigration waves over the past few decades, more attention is being paid to social integration of immigrants in the host country. In particular school classes are of importance because for youth with a migration background this is one of their first avenues to integrate with the host society's culture and the adolescent years are important to one's personal and cognitive development (Agirdag et al., 2011; Graham, 2006; Plenty \& Jonsson, 2016; Verkuyten \& Thijs, 2002a).

The present study used the Dutch data of the first wave of the CILS4EU to examine the relation of ethnicity, classroom ethnic heterogeneity and self-esteem with social exclusion among students in the Netherlands. We aimed to contribute to the existing literature by examining the relation of ethnicity, ethnic heterogeneity and self-esteem with social exclusion in the Netherlands. The theories used are social misfit theory, stating that those who do not adhere to prevailing norms are 'social misfits', and power imbalance theory, stating that those who are in a numerical minority possess less power. Three hypotheses are derived.

Furthermore, we added self-esteem as a possible defensive mechanism that may help/support individuals to fend off direct forms of victimization. Additionally, much research has distinguished the relations of classroom composition effects for natives and non-natives as a dichotomous variable. Following Verkuyten and Thijs (2002a), we aimed to further explore the relation of ethnic heterogeneity in a classroom with social exclusion for differing ethnic groups.

The first hypothesis that students who belong to an ethnic minority in the host society are more likely to be socially excluded in classrooms is not supported with our results. We find no significant relations on rejection, isolation or victimization for Turkish, Moroccan, Surinamese or other students in comparison with their Dutch peers.

We find also no significant results for the first part of hypothesis 2, stating that the higher the ethnic heterogeneity in classrooms the less likely individuals are to be socially excluded. As for the second part of hypothesis 2 , stating that the effect of ethnic heterogeneity
is larger for all students of ethnic minority groups than for Dutch students, also no significant results were found. Therefore, both first and second part of hypothesis 2 are not supported. This is not in line with a number of existing studies concerning the effect of social misfits (Wright et al., 1986) and concerning the effect of ethnic diversity in schools on social exclusion (Graham, 2006; Juvonen et al., 2006). However, our findings are partly in line with Agirdag et al. (2011) who only found an effect concerning imbalance of power for nonnatives in schools. As a possible explanation for the lack of results for natives they point out that, although there are school classes where natives are in a numerical minority, they still are in the numerical majority in society. Therefore, they might be less vulnerable for social exclusion in classrooms.

Finally, the last hypothesis which states that those with a higher level of self-esteem are less likely to be victimized is supported by the results. Although the effect is not very high, the findings suggest that a higher self-esteem can work as a defensive mechanism to ward off direct victimization. This finding is in line as what Sharp's (1996) findings suggested, that those with lower self-esteem are bullied more extensively and experience more stress of it and vice versa. They are also in line with Jordan et al. (2003) who found that in general those with a higher self-esteem are relatively less harmed by threats.

## Discussion

The main contribution of this study is adding the concept of self-esteem as a defensive mechanism to the relation of ethnicity with social exclusion, victimization in particular, among students. Most studies only investigated variables as differing forms of classroom contexts and ethnicity on social exclusion. The slightly mixed evidence of ethnicity, ethnic heterogeneity and self-esteem with social exclusion made us believe there are more factors influencing this relation.

The second contribution we made is adding an interaction of the four ethnicities and the ethnic heterogeneity in a classroom in the analyses. Previous research was mainly only limited by distinguishing natives and non-natives as an interaction with classroom contexts and therefore maybe neglecting cultural differences between ethnic minorities. Despite no significant results appeared, it is interesting for further research to investigate varying classroom or school contexts and its relation with social exclusion per ethnicity. It might also be interesting to check who is victimized by whom.

A first limitation of this study is not taking into account the multilevel nature of the data. This means the used data is nested in different levels, namely the students level, the class
level and school level. In the analysis this study uses, there is an assumption that all levels are more or less alike. In reality this is of course not the case, with different teachers in different classes at schools with unique policies. Additionally, this study used a single technique measuring ethnic heterogeneity, calculating the amount of different ethnicities within a group. It is interesting to also take into account the ethnic minority concentration in the analysis, which is the concentration of a single ethnic group (Agirdag et al., 2011). It is recommended for further research to include both measurements as to reassure results of ethnic composition on social exclusion are unambiguous.

A second limitation is the self-reported variable victimization. Self-reported data is highly subject to self-biases. Furthermore, as shown in table 1, the number of students labelled 'victimized' is quite large. A possible explanation of this could be that the questions and answer categories of the survey have been a bit misleading. Questions asking about being teased or being scared of peers might be a relatively vague and one of the possible answer categories once or several times a week is a very broad category. Additionally, due to the inclusion of different ethnicities, cultural differences may determine part of the skewed distribution. A recommendation for further research could be including more clear answer categories to questions like these, or alter the question so that, for example, each respondent can fill in how many times a week one has been scared of, has been bullied or teased by peers. Although there still would be a self-reporting bias, a clearer cut-off can be made.

A third shortcoming of this study is the listwise deletion of the missing data, by which relatively much valuable data is left out of the analysis. Other methods concerning missing data are recommended, for example pairwise deletion, by which only the missing data of a respondent is deleted and the rest is kept in the analysis. There is a possibility that the small representation of the ethnic minority groups is due to this listwise deletion. Therefore this study has relatively low statistical power. Further research would benefit from a better distribution in the dataset so it is a better representation of the population. Also it would be more attainable to find possible effects.

A last point of improvement for further research would be to include self-esteem in a longitudinal research and examine the possible causality or interplay of self-esteem and socially exclusion.

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## Appendix A: Sensitivity Analysis for cut-offs on rejection

## Cut-off at four peer nominations

Table 2.1
Linear probability models on social exclusion $\left(N_{\text {total }}=3138\right)$
$\left.\begin{array}{lll}\hline & \begin{array}{l}\text { Rejection } \\ \\ \end{array} & \text { Model 1 }\end{array}\right)$ Model 2

| Self-esteem |  |  |
| :--- | :--- | :--- |
| Gender | .034 | .034 |
| $($ male $=1)$ | $(.015)$ | $(.015)$ |
| Family structure | -.007 | -.007 |
| (lives with biological parents | $(.018)$ | $(.018)$ |
| $=1)$ | -.006 | -.006 |
| Academic performance | $(.011)$ | $(.011)$ |
|  | .002 | .001 |
| Socioeconomic status | $(.006)$ | $(.006)$ |
| father | $.009^{* * *}$ | $.009^{* * *}$ |
| Class size | $(.001)$ | $(.001)$ |
| Adjusted $\mathrm{R}^{2}$ | .014 | .013 |

## Cut-off at five peer nominations

Table 2.2
Linear probability models on social exclusion $\left(N_{\text {total }}=3138\right)$

|  | Rejection |  |
| :---: | :---: | :---: |
|  | Model 1 | Model 2 |
| Constant | $\begin{aligned} & \hline .009 \\ & (.037) \end{aligned}$ | $\begin{aligned} & \hline .010 \\ & (040) \end{aligned}$ |
| Ethnicity |  |  |
| Dutch | Ref. | Ref. |
| Turks | $\begin{aligned} & .012 \\ & (.030) \end{aligned}$ | $\begin{aligned} & .039 \\ & (.033) \end{aligned}$ |
| Moroccans | $\begin{aligned} & .012 \\ & (.031) \end{aligned}$ | $\begin{aligned} & .033 \\ & (.035) \end{aligned}$ |
| Surinamese | $\begin{aligned} & -.047 \\ & (.032) \end{aligned}$ | $\begin{aligned} & -.047 \\ & (.033) \end{aligned}$ |
| Other | $\begin{aligned} & -.021 \\ & (.016) \end{aligned}$ | $\begin{aligned} & -.020 \\ & (.017) \end{aligned}$ |
| Ethnic Heterogeneity | $\begin{aligned} & -.065 \\ & (.043) \end{aligned}$ | $\begin{aligned} & -.054 \\ & (.093) \end{aligned}$ |
| Dutch*Heterogeneity | Ref. | Ref. |
| Turks*Heterogeneity |  | $\begin{aligned} & -.213 \\ & (.145) \end{aligned}$ |
| Moroccans*Heterogeneity |  | $\begin{aligned} & -.073 \\ & (.136) \end{aligned}$ |
| Surinamese*Heterogeneity |  | $\begin{aligned} & .153 \\ & (.181) \end{aligned}$ |
| Other*Heterogeneity |  | $\begin{aligned} & .002 \\ & (.151) \end{aligned}$ |
| Self-esteem |  |  |
| Gender $(\text { male }=1)$ | $\begin{aligned} & .014 \\ & (.013) \end{aligned}$ | $\begin{aligned} & .015 \\ & (.013) \end{aligned}$ |
| Family structure (lives with biological parents $=$ 1) | $\begin{aligned} & -.015 \\ & (.015) \end{aligned}$ | $\begin{aligned} & -.015 \\ & (.015) \end{aligned}$ |
| Academic performance | $\begin{aligned} & .002 \\ & (.009) \end{aligned}$ | $\begin{aligned} & .002 \\ & (.009) \end{aligned}$ |
| Socioeconomic status father | $\begin{aligned} & .003 \\ & (.005) \end{aligned}$ | $\begin{aligned} & .002 \\ & (.005) \end{aligned}$ |
| Class size | $\begin{aligned} & .008 * * * \\ & (.001) \end{aligned}$ | $\begin{aligned} & .008^{* * *} \\ & (.001) \end{aligned}$ |
| Adjusted R ${ }^{2}$ | . 014 | . 014 |

*p <.05, **p<.01, ***p<. 001

## Cut-off at six peer nominations

Table 2.3
Linear probability models on social exclusion $\left(N_{\text {total }}=3138\right)$

|  | $\frac{\text { Rejection }}{\text { Model 1 }}$ | Model 2 |
| :--- | :--- | :--- |
| Constant | -.018 | -.030 |
| Ethnicity | $(.032)$ | $(.034)$ |
| Dutch | Ref. | Ref. |
| Turks | .011 | .036 |
|  | $(.026)$ | $(.029)$ |
| Moroccans | .024 | .052 |
|  | $(.027)$ | $(.030)$ |
| Surinamese | -.025 | -.021 |
|  | $(.027)$ | $(.029)$ |
| Other | -.009 | -.005 |
|  | $(.014)$ | $(.014)$ |
| Ethnic Heterogeneity | -.056 | .023 |
|  | $(.037)$ | $(.079)$ |
| Dutch*Heterogeneity | Ref. | Ref. |
|  |  | -.177 |
| Turks*Heterogeneity |  | $(.124)$ |
| Moroccans*Heterogeneity |  | -.174 |
| Surinamese*Heterogeneity |  | $(.117)$ |
| Other*Heterogeneity |  | $(.067$ |
|  |  | $(.155)$ |
|  |  | $(.091$ |

Self-esteem

| Gender $(\text { male }=1)$ | $\begin{aligned} & .012 \\ & (.011) \end{aligned}$ | $\begin{aligned} & .013 \\ & (.011) \end{aligned}$ |
| :---: | :---: | :---: |
| Family structure (lives with biological parents = 1) | $\begin{aligned} & .003 \\ & (.013) \end{aligned}$ | $\begin{aligned} & .003 \\ & (.013) \end{aligned}$ |
| Academic performance | $\begin{aligned} & .005 \\ & (.008) \end{aligned}$ | $\begin{aligned} & .005 \\ & (.008) \end{aligned}$ |
| Socioeconomic status father | $\begin{aligned} & .000 \\ & (.005) \end{aligned}$ | $\begin{aligned} & -.001 \\ & (.005) \end{aligned}$ |
| Class size | $\begin{aligned} & .006 * * * \\ & (.001) \end{aligned}$ | $\begin{aligned} & .006^{* * *} \\ & (.001) \end{aligned}$ |
| Adjusted R ${ }^{2}$ | . 011 | . 012 |

*p <.05, **p<.01, ***p<. 001

## Cut off at seven peer nominations

Table 2.4
Linear probability models on social exclusion $\left(N_{\text {total }}=3138\right)$

|  | Rejection |  |
| :---: | :---: | :---: |
|  | Model 1 | Model 2 |
| Constant | $\begin{aligned} & \hline-.040 \\ & (.028) \end{aligned}$ | $\begin{aligned} & \hline-.046 \\ & (.030) \end{aligned}$ |
| Ethnicity |  |  |
| Dutch | Ref. | Ref. |
| Turks | $\begin{aligned} & .014 \\ & (.022) \end{aligned}$ | $\begin{aligned} & .027 \\ & (.025) \end{aligned}$ |
| Moroccans | $\begin{aligned} & .012 \\ & (.023) \end{aligned}$ | $\begin{aligned} & .032 \\ & (.026) \end{aligned}$ |
| Surinamese | $\begin{aligned} & -.053 \\ & (.024) \end{aligned}$ | $\begin{aligned} & -.054 \\ & (.025) \end{aligned}$ |
| Other | $\begin{aligned} & -.012 \\ & (.012) \end{aligned}$ | $\begin{aligned} & -.009 \\ & (.013) \end{aligned}$ |
| Ethnic Heterogeneity | $\begin{aligned} & -.042 \\ & (.032) \end{aligned}$ | $\begin{aligned} & .001 \\ & (.070) \end{aligned}$ |
| Dutch*Heterogeneity | Ref. | Ref. |
| Turks*Heterogeneity |  | $\begin{aligned} & -.082 \\ & (.109) \end{aligned}$ |
| Moroccans*Heterogeneity |  | $\begin{aligned} & -.147 \\ & (.103) \end{aligned}$ |
| Surinamese*Heterogeneity |  | $\begin{aligned} & .108 \\ & (.136) \end{aligned}$ |
| Other*Heterogeneity |  | $\begin{aligned} & -.059 \\ & (.113) \end{aligned}$ |
| Self-esteem |  |  |
| Gender $(\text { male }=1)$ | $\begin{aligned} & .016 \\ & (.010) \end{aligned}$ | $\begin{aligned} & .017 \\ & (.010) \end{aligned}$ |
| Family structure (lives with biological parents $=$ 1) | $\begin{aligned} & .000 \\ & (.012) \end{aligned}$ | $\begin{aligned} & .000 \\ & (.012) \end{aligned}$ |
| Academic performance | $\begin{aligned} & .004 \\ & (.007) \end{aligned}$ | $\begin{aligned} & .004 \\ & (.007) \end{aligned}$ |
| Socioeconomic status father | $\begin{aligned} & -.001 \\ & (.004) \end{aligned}$ | $\begin{aligned} & -.001 \\ & (.004) \end{aligned}$ |
| Class size | $\begin{aligned} & .006 * * * \\ & (.001) \end{aligned}$ | $\begin{aligned} & .006^{* * *} \\ & (.001) \end{aligned}$ |
| Adjusted R ${ }^{2}$ | . 015 | . 015 |

*p <.05, **p<.01, ***p<. 001


[^0]:    *p <.05, **p<.01, ***p<. 001

