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The paradox of integration: why do higher educated new immigrants perceive more discrimination in Germany?

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ABSTRACT

This article analyses the relation between immigrants' educational attainment and their perceived discrimination. Previous studies in the Netherlands have found that ethnic discrimination is a particularly salient concern among higher educated immigrants, also referred to as the paradox of integration. By using data from the SCIP-project ('Causes and Consequences of Early Socio-Cultural Integration Processes among New Immigrants in Europe'), I empirically examine, firstly, whether this counterintuitive finding applies to the group of recently arrived Polish and Turkish immigrants in Germany. Secondly, based on three theoretical perspectives, and taking the opportunity structure, immigrants' awareness, and their relative deprivation into account, I am concerned with the explanation of the integration paradox. Bivariate results confirm the existence of the integration paradox for recent immigrants in Germany. The findings of mediation analysis and effect decomposition indicate that all three theoretical approaches contribute to the explanation; however, the positive relation between educational attainment and perceived discrimination requires slightly different explanations for Poles and Turks. The results further illustrate that it would be misleading to conclude that higher educated immigrants are automatically protected against discriminatory acts.

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Integration; immigrants;
discrimination; education;
KHB decomposition

Introduction

Newcomers typically arrive in a new country with high expectations. Often, migration is associated with the hope that living conditions and personal quality of life will improve. However, while settling abroad, it becomes apparent that these expectations are not always met (Hendriks 2015). Among other things, this is attributable to the fact that migrants are confronted with discrimination by majority members in multiple societal domains, for example, while searching for a job (Blommaert, Coenders, and van Tubergen 2014), in schools (Lorenz et al. 2016) or when applying for a flat (Auspurg, Hinz, and Schmid 2017), which creates socioeconomic barriers that are difficult to overcome (Reskin 2012). The consequences of discrimination are even more far-reaching. They range from negative effects on immigrants' life satisfaction (Safi 2010; Verkuyten 2008) and their mental and physical health (Krieger 2014; Schunck, Reiss, and Razum 2015)

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to threats to social cohesion, as experiences of discrimination often lead to negative attitudes towards the host society (Döring 2007; ten Teije, Coenders, and Verkuyten 2013; Tolsma, Lubbers, and Gijsberts 2012; Verkuyten 2016).¹

Previous research has shown that higher educated immigrants are viewed favourably and lower educated immigrants are not (Hainmueller and Hopkins 2015; Turper et al. 2015). Therefore, it seems plausible to expect that discrimination affects certain subgroups to varying degrees. Following classical and new assimilation theories (Alba 2008; Gordon 1964), structurally more integrated (e.g. higher educated) immigrants should experience less personal discrimination than structurally less integrated (e.g. lower educated) ones. However, previous research in the Netherlands has revealed that the relation between education and perceived discrimination is far from negative. On the contrary, perceived discrimination is higher among better-educated immigrants (de Vroome, Martinovic, and Verkuyten 2014; van Doorn, Scheepers, and Dagevos 2013). This phenomenon is labelled *the paradox of integration*.²

In this paper, I empirically investigate, firstly, whether this counterintuitive finding also applies to recent Polish and Turkish immigrants in Germany. I ask whether immigrants' level of education and their perception of discrimination are positively related immediately after immigration. Secondly, I examine why higher educated immigrants consider themselves to be more often discriminated against. Following the idea of distinct opportunity structures, I assume that higher and lower educated immigrants take part in different daily contexts, which provide varied chances of perceiving discrimination. The theory of awareness brings into focus that being higher educated allows reflections on existing societal inequalities. Based on the theory of relative deprivation, I consider that higher educated immigrants more frequently frame certain daily experiences in terms of discrimination because they feel particularly deprived.

The study complements existing research in three ways, by focusing on a new country, distinguishing between ethnic groups, and examining recent migrants. Even though the general finding – namely, that immigrants' level of education and their perception of discrimination are positively related in Germany – can be found in several studies (e.g. Brenick et al. 2012; Diehl and Liebau 2017; Dill and Jirjahn 2014; Schaeffer 2018), none of these studies explicitly examine the underlying reasons for this relation. The study contributes to the literature by extending research on the paradox of integration to the German context.³ In line with research from the Netherlands (van Doorn, Scheepers, and Dagevos 2013), my analyses provide empirical evidence that, also in Germany, all three theoretical perspectives contribute to the explanation of the integration paradox, and, depending on the group of immigrants (Polish or Turkish newcomers), some explanations are more prevailing than others. Investigating recently arrived immigrants is interesting because, contrary to more established immigrants, newcomers spend less time in the new country and most often have gained their education in their country of origin. It is, therefore, relevant to find out whether the integration paradox also exists for this specific group of immigrants. Furthermore, the study not only extends existing knowledge to another country, reveals different explanations for ethnic groups, and focuses on new immigrants, but also fully uncovers, for the first time, the positive relation between immigrants' educational attainment and perceived discrimination.

In the following theoretical section, I start with a brief discussion concerning the relation between different concepts of discrimination. Then, three theoretical perspectives

that may account for the paradox of integration for immigrants in Germany are presented, including corresponding hypotheses. In the next section, data, operationalisation of variables, and methodological strategy are described. I have made use of data from the SCIP-project ('Causes and Consequences of Early Socio-Cultural Integration Processes among New Immigrants in Europe'), a novel survey for recently arrived Polish and Turkish immigrants. After showing bivariate empirical findings on the relationship between newcomers' level of education and their perceived discrimination, the findings of mediation analyses and effect decompositions are presented. In the last section, results are summarised and deviating results for Polish and Turkish newcomers are discussed.

Concepts of discrimination

Before turning to the theoretical assumptions, I briefly discuss the link between perceived and actual discrimination and I comment on the relation between perceived personal and perceived group discrimination.

Perceived and actual discrimination

Investigating discrimination is a demanding task for several reasons: Firstly, immigrants probably disagree on what counts as unequal treatment because discrimination often comes in subtle forms (Pettigrew and Meertens 1995). Secondly, immigrants' experiences of discrimination differ because perceived discrimination may be different from actual discrimination, that is, what is interpreted as a discriminatory act is a highly subjective issue. Hence, either objective circumstances and subjective perceptions correspond with each other or discrimination is over- and underestimated, respectively (Quillian 2006, 303). Thirdly, it is difficult to empirically differentiate between perceived and actual discrimination. Whereas, perceptions of discrimination are well captured with survey data, measuring actual discrimination requires real-world experimental evidence (Pager and Shepherd 2008, 185).

Studying immigrants' perceptions is worthwhile for at least three reasons: Firstly, it is plausible to assume that actual and perceived discrimination are highly correlated, that is, actual discriminatory acts have a strong influence on immigrants' degree of perceived discrimination. Secondly, and even more importantly, perceived discriminatory acts have consequences for an individual's everyday practice because people generally act on what they perceive as real, not on what is actually real (Salentin 2007, 37). Finally, the mere fact that some people view their lives through the lens of ethnic discrimination – that is, they more often apply discrimination as a heuristic to explain certain incidents than others do (Maxwell 2015) – should be reason enough to explore the underlying reasons for this.

Perceived personal and perceived group discrimination

Typically, two types of perceived discrimination are differentiated. Either discrimination is directed at individuals because of their ethnic origin or at the ethnic group as a whole (Bourguignon et al. 2006). Surveying the first refers to perceived personal discrimination; the second indicates perceived group discrimination. Studies have repeatedly found a

difference between perceived personal and perceived group discrimination, also labelled as the ‘personal-group discrimination discrepancy’: Immigrants are prone to perceiving more discrimination towards their own ethnic group than towards themselves personally. Several underlying motivational and cognitive mechanisms to explain this discrepancy have been discussed (Taylor et al. 1990, 255). There are profound reasons why I prefer perceived personal over perceived group discrimination for the following analysis. Perceptions of group discrimination are biased by perceived personal discrimination because of the so-called ‘false consensus effect’: People tend to overestimate the degree to which their own perceptions are shared by others (Taylor et al. 1991, 857). Concerning survey methodology, survey questions to gather perceived group discrimination are rather imprecise because respondents simply have to guess what others experience, whereas survey questions on perceived personal discrimination are a collection of crucial experiences that matter for individuals (Schaeffer 2018, 10). In view of the above, I have used perceived personal discrimination, not perceived group discrimination in my study.

Theories and hypotheses

There are many (complementary) explanations as to why discrimination is such a salient concern among higher educated immigrants. In the following, I theoretically explain this paradox via the arguments related to distinct opportunity structures, the theory of awareness, and the theory of relative deprivation.

Opportunity structure

The first explanation takes into account that higher and lower educated immigrants participate in different contexts in their daily lives, which produce different chances of being discriminated against. I assume that higher educated immigrants perceive more personal discrimination because they partake in certain contexts where discriminatory treatment is more likely. The probability of being discriminated against is especially high when immigrants regularly come into contact with majority members.⁴ This is the case for higher educated immigrants because they participate in spheres where the amount of contact with natives is higher (van Doorn, Scheepers, and Dagevos 2013, 384). I further expect that in these spheres, it is especially immigrants’ involuntarily chosen contact with natives, which leads to increased perceptions of discrimination. By contrast, contact that immigrants have chosen voluntarily, such as friendships, has the opposite effect on perceived discrimination (Di Saint Pierre, Martinovic, and de Vroome 2015, 1849).

In Germany, higher and lower educated newcomers show different patterns of labour market integration. Immigrants with a higher educational level are more likely to be employed (Kogan 2011, 104) compared to lower educated immigrants. Furthermore, being higher educated is associated with a longer stay in the educational system. Being employed or participating in the educational system increase the chance of interacting with majority member colleagues, customers, or students, which, in turn, makes immigrants more vulnerable to discrimination. And even if lower educated migrants hold jobs or go to school, they often work in highly segregated sectors (Glitz 2014, 33) or attend ethnically segregated schools (Kristen 2008, 497, where the opportunity of meeting natives is rather low.

Participating in the receiving country's organised associations provides an additional chance to interact with natives. Involvement in associations requires resources (in the form of knowledge or income). To be a member of an association, such as a sport club or a music club, monetary resources (a regular membership fee) are necessary. People participating in voluntary associations typically share their resources (knowledge and donations) with others. A higher level of education is associated with more resources, which provide opportunities for these people to get involved in associations. Previous studies have revealed that the level of educational attainment is indeed positively related to being a member of associations (Voicu and Şerban 2012, 1581) and a membership in associations with predominantly co-ethnics hinders the establishment of interethnic contacts (Martinovic, van Tubergen, and Maas 2011, 480). However, participation in associations where natives constitute the majority especially enhances the opportunity for interethnic contact, which, again, increases the likelihood of perceiving unequal treatment.

Another way to meet potential discriminators is in nearby neighbourhoods. In the German context, being lower educated is often part and parcel with residing in segregated neighbourhoods, which protect these immigrants from discriminatory acts committed by natives. Higher educated migrants often live in ethnically less-segregated areas (Janßen and Schroedter 2007, 468) and living in neighbourhoods with a high share of natives leads to more social contacts with natives (Vervoort, Flap, and Dagevos 2011, 594). For higher educated migrants, again, this implies a higher chance of running into natives and becoming victims of discrimination.

Finally, I assume that higher educated newcomers have already undertaken several trips to Germany before settling down for a longer period. Existing empirical evidence points in this direction, revealing that better-educated immigrants are especially mobile and regularly realise transnational activities (Portes 2003, 886). The reasons for previous stays may be work or education related, but may also be vacation or visiting friends and relatives. If a large share of higher educated migrants have come to Germany once or several times before actually migrating, their longer duration of stay in the country again facilitates the perception of discriminatory acts.

H₁: The integration paradox is (partly) attributable to higher educated migrants,

- (a) more frequent participation in the labour market or the educational system,
- (b) more frequent participation in associations where natives are overrepresented,
- (c) higher likelihood of living in less-segregated neighbourhoods, and
- (d) more frequent previous trips to Germany in the past.

Awareness

A second approach to explaining the integration paradox takes immigrants' awareness into account (van Doorn, Scheepers, and Dagevos 2013).⁵ The basic idea is that possessing a higher education, combined with having stronger cognitive abilities, renders the possibility to reflect on existing inequalities (Wodtke 2012, 85). I expect that higher educated immigrants are more sensitive to unequal treatment because they are more aware of the negative climate that immigrants are confronted with in the German context. The German media often portrays immigrants in a stereotypical way, and many media

reports link immigration to crime (Ruhrmann and Sommer 2009). In addition, in Germany, an ongoing debate about immigrants' alleged reluctance to integrate into German society exists. The best example of this is provided by the debate surrounding the migration-sceptical book *Deutschland schafft sich ab* (*Germany Abolishes Itself*).⁶ It is reasonable to assume that immigrants' perceptions of their social acceptance suffered over the course of this and other debates. However, immigrants are only aware of this negative public climate if they have a certain degree of German-language proficiency, if they are exposed to German media, and if they have a general interest in German politics. Several studies have revealed that higher educated immigrants, on average, possess better skills in the host country's language (van Tubergen and Kalmijn 2009, 535), are more exposed to German media (Bonfadelli, Bucher, and Piga 2007, 144) and generally display greater interest in German politics (Diehl and Blohm 2001, 412), which in turn makes them more sensitive to unequal treatment. Furthermore, higher and lower educated immigrants are members of different core networks, which help varyingly strong in raising awareness for the existing negative climate. Due to the preference of educational homophily, immigrants prefer to befriend with those that are similarly educated (van Tubergen 2015, 113). Thus, core networks of higher educated mainly contain other higher educated, who are also aware of societal inequalities. Exchanging views on these issues reinforce the already higher awareness of higher educated newcomers additionally and drive their perceptions of discrimination.

H₂: The integration paradox is (partly) attributable to higher educated migrants

- (a) better German-language proficiency,
- (b) more frequent consumption of German media,
- (c) greater interest in German politics, and
- (d) higher proportion of highly educated friends.

Relative deprivation

Furthermore, the theory of relative deprivation has been used to explain higher and lower educated immigrants' differences in perceived discrimination. In general, people feel relatively deprived if they judge themselves as worse-off compared to a certain reference group (Smith et al. 2012, 204). Higher educated migrants more often use discrimination as a heuristic to interpret events in everyday life because they feel particularly deprived. This is the case because higher and lower educated immigrants compare their situations in the new country with those of different reference groups. In general, immigrants most frequently choose co-ethnics in the receiving society for intergroup comparisons, followed by co-ethnics living in the origin country and majority members (Zagefka and Brown 2005, 475). Whereas lower educated migrants are more oriented towards other co-ethnics (in the receiving or origin country), higher educated migrants compare their outcomes to those of the native population. Furthermore, I assume that the reference groups of higher and lower educated immigrants may also differ with regard to their level of qualification. Higher educated migrants often compare themselves with equally qualified people – whether from the receiving or the origin country. Thus, in contrast to lower educated migrants, the better educated have the impression that, despite their educational achievements, their potential is not equally rewarded in the host country because the results of the

relevant comparisons turn out to be unfavourable (de Vroome, Martinovic, and Verkuyten 2014, 167). Immigrants' feelings of unequal rewards may primarily arise because of comparisons between their employment status and their general life situation pre- and post-migration. The first process solely aims at work-related issues, whereas the second process, in addition, includes changes unrelated to employment. If newcomers experience downward mobility and evaluate their life after moving to Germany in negative comparison to their pre-migration life (which is more likely for better-educated migrants), this contradicts their initial high expectations (Silberman, Alba, and Fournier 2007, 21). As a consequence, these status-inconsistencies could result in feelings of relative deprivation, which could then implicate that higher educated immigrants are more likely to perceive particular incidents as discriminatory.

H₃: The integration paradox is (partly) attributable to higher educated migrants

- (a) more frequent experiences of downward mobility and
- (b) higher likelihood of evaluating their post-migration life situation as not having improved compared to their life before migrating.

Certainly, it should not be forgotten that a few theoretically explicated links can also be at least partly endogenous; that is, causality is presumably bidirectional in these cases. For example, migrants who perceive discrimination might avoid becoming members in associations, where they are predominantly surrounded by natives, and newcomers' perceptions of discrimination might cause their downward mobility later on.⁷

Data, operationalisation, and methodology

In order to investigate whether the paradox of integration exists for new migrants in Germany and to find out how to explain it, I have used data from the SCIP-project (Diehl et al. 2015), which provides a data base for studying the integration processes of recent immigrants (with an average length of stay of eight months) in four European countries (Germany, Great Britain, Ireland, and the Netherlands). I have made use of data from the first wave of the German context, which was collected between 2010 and 2011. The sample was randomly drawn from the population registers of five large cities (Berlin, Bremen, Cologne, Hamburg, and Munich). In total, 2697 immigrants (1516 Poles and 1181 Turks, aged between 18 and 60) were contacted and interviewed (CAPI) in their mother tongues. I excluded 106 (3.9%) respondents because they were classified as missing on the dependent variable or the key independent variable.⁸

Dependent variable

A binary variable, indicating whether respondents had perceived personal discrimination since they moved to Germany, serves as the dependent variable. Respondents had to answer four questions on their perceptions of discrimination in different daily contexts: 'Since you moved to Germany,

- have you been turned down for a job or a job interview?

- have you been refused on a rental or housing application, or denied a place in a hostel or shared accommodation?
- have you ever experienced bad treatment at official institutions in Germany, such as rudeness or having to wait longer than the usual time for assistance or documents?
- have you ever been yelled at, spat on, or experienced physical violence in a public place from a stranger?

If respondents agreed, it was assumed that they perceived discrimination. After each question, respondents were additionally asked: ‘What do you think was the main reason for this?’. As the emphasis of the paper is on perceived discrimination concerning an individual’s ethnic origin, I have excluded all incidents where discrimination was attributed to reasons other than ethnicity, nationality, religion, and language or accent.⁹ If respondents reported discrimination in at least one of the four contexts, this was coded as having perceptions of discrimination.¹⁰

Independent variable

The key independent variable is a categorical measure of an immigrant’s educational attainment. Respondents’ highest level of completed education was coded, regardless of whether this had been achieved in their country of origin or in Germany.¹¹ I distinguished between immigrants with tertiary education and those with a lower level of education.¹²

Mediating variables

All mediating variables were derived from the theoretical expectations. In order to capture the opportunity structure, I included new arrivals’ main activity. I distinguished between respondents who were either currently employed or in education and all others. I further took into account whether immigrants were members of associations where no more than half of the members were co-ethnics (i.e. integrated associations), against respondents without association membership or participation in associations with more than half co-ethnics (i.e. segregated or no associations). These associations included sports clubs, political organisations, religious groups, and any other associations in the receiving country. I also included a variable, self-reported by the respondents, that differentiated between immigrants living in neighbourhoods where co-ethnics form the majority (i.e. segregated neighbourhoods) and those who were not predominantly surrounded by other co-ethnics (i.e. integrated neighbourhoods). Finally, I considered information regarding whether immigrants had spent a period of four weeks or longer in Germany before finally moving.

With the use of four variables, I measured whether immigrants were aware of the public debate about immigrants and immigration in Germany. German-language proficiency was assessed based on whether respondents had learned German in school in their origin country.¹³ Whether immigrants read German newspapers was captured with a five-point scale ranging from ‘never’ to ‘every day’. Another continuous variable was used to measure immigrants’ interest in German politics by measuring the number of parties in the German Bundestag that respondents were able to name. The six-point scale ranges from none to a maximum of five parties. Finally, respondents’ share of highly educated

friends was calculated by dividing the number of closest friends in Germany with a university degree by all closest friends in Germany (excluding parents, partner, and children).

I investigated the influence of relative deprivation by taking into account immigrants' perceived social mobility over the course of migration. By comparing new arrivals' satisfaction with their jobs pre- and post-migration, I constructed a categorical measure consisting of respondents who experienced upward or downward mobility and those who were comparably satisfied with their jobs.¹⁴ Furthermore, I considered whether respondents evaluated their post-migration life situation positively or negatively compared to their pre-migration life situation.¹⁵

Control variables

Additionally, I added control variables, such as ethnicity, gender, age, and length of stay, which are known to be related to perceived discrimination (Salentin 2007, 46). All presented models also controlled for city of interview. Table 1 reports the descriptive statistics of all model variables separately for lower and higher educated newcomers. The two groups under investigation indeed differed significantly with respect to all mediating variables (only exception: immigrants' main activity) and differences were observed in the expected direction.

Missing values

The number of missing values on each independent variable was less than 3%, except for three variables (neighbourhood, German-language proficiency, and proportion of highly educated friends). If missing values were removed by listwise deletion, this would lead to a loss of 775 cases (30% of the sample). By using multiple imputations by chained equations (20 imputed data sets), I replaced all missing values with predicted values (Royston and White 2011). For every variable, I predicted missing values in separate models by including selected independent variables and all control variables.

Methodological strategy

The multivariate analysis consists of three analytical steps. In the first step, I applied mediation analyses (Preacher 2015), by use of generalized structural equation modeling, for each explanatory dimension in order to find out whether all mediators worked as theoretically expected. In the second step, I made use of the KHB method (Kohler, Karlson, and Holm 2011), which is ideally suited for decomposing effects in models with a binary dependent variable, it allows for a simultaneous analysis of multiple mediators, it corrects for rescaling effects when additional variables are included in a model, and it works better when control variables are added (Breen, Karlson, and Holm 2013). Furthermore, Monte Carlo simulations have shown that the KHB method generates more precise results compared to alternative methods of decomposition (Karlson, Holm, and Breen 2012). A particular advantage is the easily interpretable output, because the results determine the percentages of the indirect effect which is explained by opportunity structure, awareness, and relative deprivation (and the corresponding variables). The third

Table 1. Distribution of model variables.

	Range	Total (N = 2.591)			Lower educated immigrants (n = 1.395)		Higher educated immigrants (n = 1.196)	
		Mean/ proportion	Standard deviation	Missing values (%)	Mean/proportion	Standard deviation	Mean/proportion	Standard deviation
Dependent variable								
Perceived discrimination	0/1	0.22	0.41	0.00	0.19	0.39	0.25*	0.43
Independent variable								
Education (Tertiary)	0/1	0.46	0.50	0.00				
Mediating variables								
Main activity (working or in education)	0/1	0.58	0.49	0.46	0.58	0.49	0.57	0.49
Participation in associations (integrated)	0/1	0.08	0.27	0.00	0.06	0.23	0.11*	0.32
Neighbourhood (integrated)	0/1	0.86	0.36	10.54	0.83	0.38	0.90*	0.30
Previous trips to Germany (spent time)	0/1	0.35	0.48	0.96	0.33	0.47	0.38*	0.49
German-language proficiency (existent)	0/1	0.41	0.49	9.73	0.30	0.46	0.53*	0.50
Reading German newspapers	0–4	1.29	1.37	0.08	1.08	1.28	1.54*	1.43
Interested in German politics	0–5	1.35	1.43	0.04	1.04	1.34	1.72*	1.45
Highly educated friends	0–1	0.23	0.36	9.22	0.13	0.27	0.34*	0.41
Social mobility	0–2			2.59				
Upward mobility		0.19			0.21		0.17*	
No mobility		0.38			0.41		0.35*	
Downward mobility		0.43			0.38		0.48*	
Pre-post comparison of living situation (not improved)	0/1	0.72	0.45	1.93	0.68	0.47	0.76*	0.42
Control variables								
Ethnicity (Turkish)	0/1	0.43	0.50	0.00	0.43	0.50	0.43	0.50
Gender (female)	0/1	0.46	0.50	0.00	0.46	0.50	0.47	0.50
Age (in years)	18–60	31.59	9.70	1.81	31.59	9.70	31.45	9.17
Length of stay (in months)	0–28	8.12	4.76	1.20	8.12	4.76	7.96	4.79

Notes: differences in means or proportions between lower and higher educated immigrants are determined by χ^2 -test or two sample t-test; * $p < .05$.

Source: SCIP-project, own calculations (after multiple imputation).

step presents results separately for Polish and Turkish newcomers, in order to detect differences between the two ethnic groups.

Empirical results

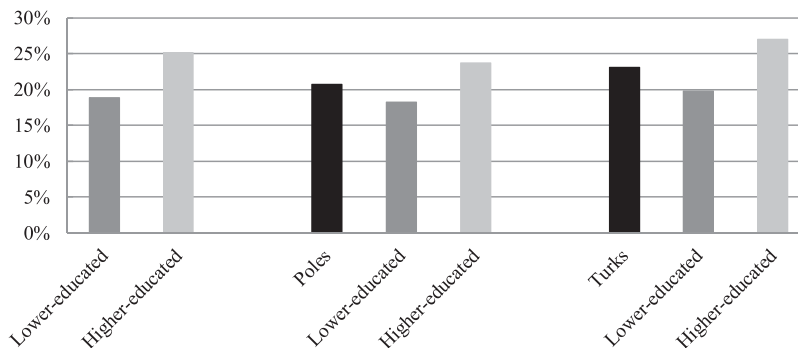
Before turning to the explanatory part of the paper, I ask whether immigrants' educational attainment and their perceived discrimination are positively related immediately after migrating to Germany.

Is there an integration paradox?

Bivariate findings, displayed in [Figure 1](#), affirm the expected relation between the level of education and newcomers' perceptions of discrimination. A higher level of education is related to more perceived discriminatory acts: For higher educated migrants, about one out of four perceived (at least one act of) discrimination since moving to Germany (25.08%), whereas less than one-fifth of the lower educated had experienced the same (18.85%). Based on a χ^2 -test, the difference between the two groups is statistically significant (χ^2 -test: $p < .001$). Thus, also for the German context, we can conclude that the integration paradox is relevant for recently arrived immigrants. Contrary to previous research (e.g. Hans 2010, 286), Turkish immigrants' degree of experienced discrimination (23.07%) is only marginally higher compared to that of the Polish group (20.72%). According to a χ^2 -test, the group difference is not statistically significant (χ^2 -test: $p = 0.151$). The positive relation between education and discrimination has been detected for both ethnic groups investigated. However, the integration paradox is slightly more pronounced for the Turkish than for the Polish group.

How do we explain the integration paradox?

The aim of the next section is to investigate whether the integration paradox can be explained by the varying opportunity structures, immigrants' awareness, and their relative deprivation. Firstly, [Table 2](#) shows total, direct, and indirect effects of newcomers'



Source: SCIP-project, own calculations

Figure 1. Immigrants' perceived discrimination by level of education and ethnicity.

Table 2. Multivariate analyses on immigrants' perceived discrimination.

	M1: Opportunity structure			M2: Awareness			M3: Relative deprivation			M4: Integrated model		
Independent variable												
Education (ref. = primary or secondary)												
Total effect	0.37***			0.37***			0.37***			0.37***		
Direct effect	0.31**			0.21*			0.33**			0.16		
Indirect effect	0.06**			0.16***			0.04**			0.21***		
Mediating variables												
	I-M	M-D	I-D	I-M	M-D	I-D	I-M	M-D	I-D	I-M	M-D	I-D
Main activity (ref. = other activity)	−0.04	0.01	−0.00							−0.04	0.10	−0.00
Participation in associations (ref. = no or segregated)	0.76***	0.49**	0.37**							0.75***	0.39*	0.29*
Neighbourhood (ref. = segregated)	0.64***	0.11	0.07							0.64***	0.03	0.02
Previous trips to Germany (ref. = none)	0.23**	0.37**	0.08*							0.23**	0.34**	0.08*
German-language proficiency (ref. = none)				0.97***	0.08	0.08				0.97***	0.05	0.05
Reading German newspapers (ref. = never)				0.53***	0.09*	0.05*				0.53***	0.07 ⁺	0.04 ⁺
Interested in German politics (ref. = not interested)				0.95***	0.04	0.04				0.95***	0.02	0.02
Highly educated friends (ref. = none)				0.88***	0.32*	0.29*				0.90***	0.27 ⁺	0.24 ⁺
Social mobility (ref. = upward mobility)												
No mobility							−0.26**	0.10	−0.03	−0.26**	0.14	−0.04
Downward mobility							0.40***	0.33*	0.13*	0.40***	0.41**	0.17*
Pre-post comparison of living situation (ref. = improved)							0.42***	0.25*	0.11*	0.43***	0.24*	0.10 ⁺
Control variables												
Ethnicity (ref. = Polish)		0.23*			0.13			0.10			0.19	
Gender (ref. = male)		−0.05			−0.06			−0.07			−0.05	
Age (in years)		−0.01			−0.00			−0.01			−0.01	
Length of stay (in months)		0.04***			0.04**			0.04***			0.04***	
Observations		2591			2591			2591			2591	
AIC		2673.441			2675.366			2681.727			2661.607	

Notes: ⁺ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$; *all models control for city of interview (effects are not reported).

MO-M4: Generalised structural equation models; unstandardised coefficients.

I-M: direct effect of independent on mediating variable; M-D: direct effect of mediating on dependent variable; I-D: indirect effect of independent on dependent variable.

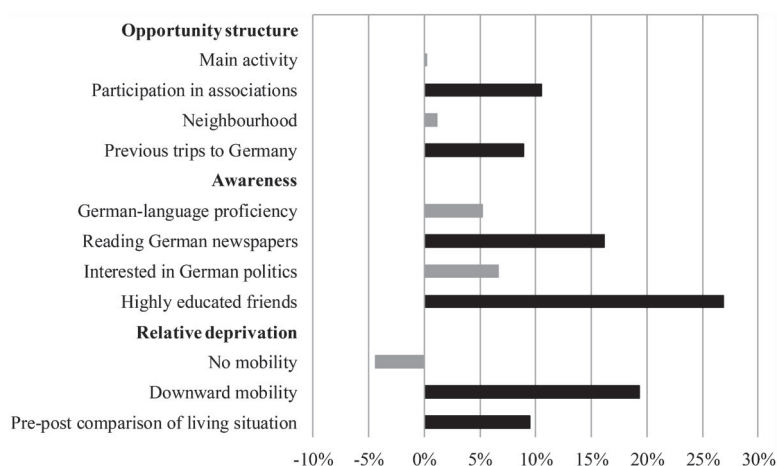
Source: SCIP-project, own calculations.

education for each explanatory dimension separately (M1–M3) and verifies the bivariate finding: After considering control variables, higher educated migrants still had a higher chance of reporting having been discriminated against, compared to the lower educated (*total effect* of education: 0.37; $p < .001$). All coefficients, displaying the direct effects of immigrants' level of education on the mediators, are statistically significant (only exception: immigrants' main activity). The direct effects of all mediating variables on immigrants' perceived discrimination point in the expected direction, and, in each explanatory dimension, two coefficients reached significance. Among the control variables, no differences were found with regard to gender or age. Depending on the model, ethnic group differences are visible, with a tendency for Turks to have perceived more discrimination. As one might expect, the longer new arrivals had resided in the country, the more perceived acts of discrimination they had undergone.

In order to answer the initially formulated research question, it is relevant to consider the effect of immigrants' education on their perceived discrimination across all the models, after taking the mediators into account. In the case of full mediation, the direct effect of immigrants' level of education would be smaller compared with the total effect and would become insignificant. The models have revealed that, after controlling for the respective mediators, the effect of education is indeed reduced, but still significant (*direct effect* of education: M1: 0.31; $p = .002$; M2: 0.21; $p = .043$; M3: 0.33; $p = .001$). Furthermore, each model shows significant indirect effects, indicating that each explanatory dimension has the potential to at least partly clarify the paradox of integration (*indirect effect* of education: M1: 0.06; $p = .001$; M2: 0.16; $p < .001$; M3: 0.04; $p = .002$).

The next model (M4) shows the results of the integrated model, which are quite similar to those of the previous models. Being a member of integrated associations and having experienced previous trips to Germany, both have an indirect effect on perceived discrimination, which supports *hypotheses 1_b* and *1_d*. In contrast, *hypotheses 1_a* and *1_c* have been refuted because there are no significant, indirect effects of education on perceived discrimination mediated by immigrants' main activity or their neighbourhood. There are indirect effects for respondents' share of highly educated friends and their consumption of German newspapers. This provides empirical evidence for *hypotheses 2_b* and *2_d*. On the contrary, *hypotheses 2_a* and *2_c* have been rejected because the indirect effects of newcomers' German-language skills and their interest in German politics are insignificant. The two *hypotheses 3_a* and *3_b* have been accepted, due to the significant indirect effects of immigrants' downward mobility and their evaluation of their post-migration life situation as relatively unimproved on perceptions of discrimination. Most importantly, the direct effect of immigrants' education on their perceived discrimination is no longer significant (*direct effect* of education: M4: 0.16; $p = .121$), whereas the indirect effect is (*indirect effect* of education: M4: 0.21; $p < .001$), that is, all mediating variables together successfully explain the relation between the independent and the dependent variables. The AIC, a measure of the comparative goodness-of-fit for a statistical model, indicates that the model including all three explanatory dimensions fits the data best.

In [Figure 2](#), the indirect effect of respondents' level of education on their degree of perceived personal discrimination was analysed in more detail because only disentangling the exact contribution of each mediator to the indirect effect makes it possible to rigorously evaluate which explanatory dimension plays the crucial role in explaining the paradox of integration. It shows that having highly educated friends, experiencing downward



Source: SCIP-project, own calculations

Notes: results of decomposition are based on integrated model in table 2 (M4; black bar: $p < .10$; grey bar: $p \geq .10$)

Figure 2. Decomposition of the indirect effect of education on immigrants' perceived discrimination (based on KHB method).

mobility, and reading German newspapers contribute the most to the explanation. When aggregating the share of the significant variables, it, again, becomes apparent that each theoretical approach contributes to the explanation of the integration paradox. Most of the indirect effect is due to immigrants' awareness ($43.02\% = 16.16\% + 26.86\%$), followed by their feeling of relative deprivation ($28.79\% = 19.32\% + 9.47\%$) and the varying opportunity structures ($19.45\% = 10.51\% + 8.94\%$).¹⁶

To conclude, the analysis provides empirical evidence that the opportunity structure, immigrants' awareness of the negative public climate, and their relative deprivation act as explanatory components when explaining the integration paradox for new immigrants in Germany.

Do different ethnic groups require different explanations?

In this final section, I ask whether the positive relation between educational attainment and perceived discrimination necessitates different explanations for the groups of Polish and Turkish newcomers. Table A3 shows the integrated model and the corresponding decomposition for Poles and Turks separately. Firstly, the difference in perceived discrimination between the higher and lower educated is higher for Turks than for Poles (*total effect* of education: M5a: 0.28; $p = .035$; M6a: 0.42; $p = .004$). This finding mirrors the descriptive evidence of Figure 1. For both ethnic groups, all mediators together reduce the effect of education on perceived discrimination and the effect is no longer significant (*direct effect* of education: M5a: 0.13; $p = .343$; M6a: 0.20; $p = .220$). Instead, there is a significant indirect effect of education via the mediators (*indirect effect* of education: M5a: 0.15; $p = .003$; M6a: 0.22; $p = .005$).

The results of the decomposition (M5b and M6b) reveal that some of the effects are comparable for the two groups, while some are different. Most notably, the integration paradox for Poles is primarily due to their awareness (i.e. highly educated friends) and

impressions of relative deprivation (i.e. social mobility), whereas, for Turks, the opportunity structure (i.e. participation in associations) and feeling relatively deprived (i.e. pre-post comparison of living situation) are decisive. Reasons why the integration paradox requires slightly different explanations for the two ethnic groups are discussed in the following section.

Conclusion and discussion

In this study, I have investigated the relation between recent immigrants' level of education and their perceived discrimination in Germany, also referred to as the paradox of integration. In line with findings from research conducted in the Dutch context (de Vroome, Martinovic, and Verkuyten 2014; van Doorn, Scheepers, and Dagevos 2013), analyses based on data from the German SCIP-project have revealed that the higher the level of education of Polish and Turkish new arrivals, the more discrimination they perceive. Therefore, the integration paradox is not restricted to only long-standing immigrants that have acquired their education in the receiving country, and the finding seems to be an overarching phenomenon of Western countries. The results contradict predictions of classical and new assimilation theories (Alba 2008; Gordon 1964). Although other studies have provided empirical evidence for the straight-line assimilation processes of immigrants in Germany (Hans 2010), it would be false to assume that structurally integrated immigrants are automatically protected against discrimination.

My main research objective was to disentangle the link between new arrivals' education and their perceptions of discrimination. I combined three explanatory approaches: By employing arguments based on the opportunity structure, I have considered that higher and lower educated immigrants participate in different daily contexts, which provide different chances of being discriminated against. The theory of awareness brings into focus that being higher educated facilitates reflections on societal inequalities. Based on the theory of relative deprivation, I have assumed that higher educated migrants more frequently make use of discrimination as a heuristic to interpret certain incidents in everyday life because they feel particularly deprived. The results of mediation analysis and effect decomposition show that all three theoretical approaches contribute to the explanation of the integration paradox in Germany. Here my results are consistent with those of the Dutch context (van Doorn, Scheepers, and Dagevos 2013).

I have further revealed that the paradox of integration is particularly distinct for the Turkish compared with the Polish group. The fact that higher educated Turks report discrimination more frequently than higher educated Poles can be explained by a modified version of Flores (2015) 'acculturative model of subjective discrimination', generally predicting that being higher educated goes along with less perceived discrimination, and further qualifying this statement by pointing out that highly educated immigrants belonging to ethnic groups that face 'bright' boundaries (not 'blurred' ones) still report high shares of discrimination.¹⁷ Contrary to this, I have found that discrimination is a striking concern among higher educated immigrants in general. However, this is especially the case for highly educated immigrants from ethnic groups that are confronted with 'bright' boundaries (e.g. Turks). Highly educated immigrants belonging to ethnic groups facing 'blurred' boundaries (e.g. Poles) are not as affected.

I have shown that the relation between immigrants' level of education and their perceived discrimination requires slightly different explanations for Poles and Turks. For both ethnic groups, feelings of relative deprivation partly explain the integration paradox; however, for Polish immigrants, their awareness is co-decisive, while, for Turkish newcomers, the opportunity structure is co-decisive. Why is awareness crucial for higher educated Poles? Belonging to a group, wherein experiencing discrimination should actually be least expected, probably makes these people, when actually perceiving discrimination for the first time, more aware of the negative public climate in the receiving society. This is why subsequent incidents of unequal treatment are perceived as discriminatory more likely. Why are opportunities relevant for higher educated Turks? Previous studies providing experimental evidence and findings from survey research point in the same direction, namely, that particularly the Turkish immigrant group is faced with actual discrimination by the native population (Horr, Hunkler, and Kroneberg 2018; Seibert and Solga 2005). Against this background, it is plausible that the opportunity structure is more relevant for Turks compared with Poles when explaining the integration paradox because it is exactly these opportunities that make actual discrimination possible in the first place.

There are several reasons why some of the factors introduced do not contribute to the explanation of the integration paradox to the extent initially expected. Firstly, some theoretical conceptualisations might be misleading. I found that the assumed relationship living in segregated or integrated neighbourhoods and perceiving more or less discrimination is erroneous. I had assumed that living in a segregated context would protect immigrants from discriminatory acts by their native neighbours, but, theoretically, another explanation is plausible, too. Immigrants who reside in segregated areas have to live there because they have suffered from housing discrimination while searching for accommodation in more integrated neighbourhoods (Dill and Jirjahn 2014, 3344). Secondly, one of the measurements may be inappropriate: One can question whether the indicators that represent the concept of relative deprivation are ideally suited to capture the theoretical idea I have proposed. Better indicators would be comprised of questions aiming at specific contexts in which respondents feel deprived, such as work or education. In addition, these questions could further distinguish between different reference groups that immigrants compare themselves with, for example, natives, co-ethnics, or less- and more-qualified people.

Despite the drawbacks mentioned, I believe that this study provides important insights into the relation of recent immigrants' integration and the ethnic boundaries they faced. The study extends existing research on the integration paradox to the German context and the presented analyses succeed in disclosing the positive relation between recently arrived immigrants' level of education and their perceptions of discrimination, even for different ethnic groups.

With regard to generalisability of the findings, it has to be acknowledged that the results cannot be easily generalised to other types of perceived discrimination, namely, perceived group discrimination. This is the case because the relative importance of the explanatory dimensions (opportunity structure, awareness, and relative deprivation) might depend on the type of perceived discrimination. It is reasonable to assume that opportunities should be more important for perceived personal than perceived group discrimination, whereas awareness might be particularly relevant for perceived group compared with perceived personal discrimination. Thus, it follows that the relative importance of awareness would be even higher with regard to perceived group discrimination.¹⁸

The research fields of perceived discrimination in general, and the integration paradox in particular, yield many other research questions that are worth dealing with. In this study, I have focused on first-generation immigrants; however, the question arises as to whether the results also apply to subsequent generations. Another meaningful question is whether the paradox of integration is a phenomenon that is restricted to immigrants only or also applies to natives. This would mean that the higher educated perceive more discrimination in general (regardless of whether they immigrated or not). Furthermore, it is not clear by whom immigrants are ethnically discriminated against. I have assumed that natives would be the perpetrators, but it would be interesting to see if ethnic discrimination between different immigrant groups exists and if migrants ascribe the same importance to this form of discrimination. In addition, I have mingled together incidents of discrimination that have taken place in completely different contexts. However, recent research shows that there is a huge variation in perceived discrimination across different institutional fields (Maxwell 2015, 443). Thus, it would be interesting to repeat the present analysis of the integration paradox in different contexts, in order to capture differences between these fields. Finally, ethnicity is not the only reason for discrimination immigrants may be affected by. Age, gender, sexual orientation, state of health, disability, and dress or appearance are other characteristics potential discriminators can use. In this case, it is plausible to suppose that the difference between higher and lower educated regarding their experiences of discrimination is even larger because the better educated are probably more sensitive to these forms of discrimination as well.

Notes

1. However, there is conflicting evidence regarding the effect of immigrants' experiences of discrimination on their wishes of returning to the home country (Steinmann 2018; Di Saint Pierre, Martinovic, and de Vroome 2015).
2. Several researchers claim the term paradox of integration in order to label empirical phenomena; namely, perceived (personal/group) discrimination or attitudes towards natives as a result of immigrants' educational level or their interethnic contacts (de Vroome, Martinovic, and Verkuyten 2014; van Doorn, Scheepers, and Dagevos 2013; Dixon et al. 2010). Generally, there is an integration paradox in a wide sense; more structurally integrated immigrants are less culturally integrated than their less structurally integrated counterparts. I, instead, focus on the integration paradox in a narrow sense; perceived discrimination as a salient concern among better-educated immigrants.
3. Recently, Schaeffer (2018) investigated how a lack of (intergenerational) educational success and high status aspirations interact in shaping immigrants' perceived discrimination. Because of this shift in focus and although the study builds on the integration paradox and takes six European countries (including Germany) into account, an empirical explanation of the integration paradox is not provided.
4. This prediction does not contradict the intergroup contact theory (Pettigrew 1998) because in line with this hypothesis, I assume that contact between two ethnic groups has positive effects only if certain conditions (equal status, cooperation, common goals, support of authorities) are met.
5. van Doorn, Scheepers, and Dagevos (2013) made use of the so-called theory of exposure, which comprised both the opportunity structure and the idea of immigrants' awareness. However, I prefer to separate these two theoretical arguments.
6. For a summary of this debate, initiated by the former board member of the German Federal Bank Thilo Sarrazin in 2010, and for a study revealing that immigrants were only allowed to express their feelings to a very limited extent during the debate, see Piwoni (2018). For an

analysis how the majority population's migration-related attitudes changed during this debate, see Diehl and Steinmann (2012).

7. A study by Diehl and Liebau (2017) takes these issues of causality into account by examining perceptions of discrimination in Germany from a longitudinal perspective and by considering perceived discrimination as an influence on but also reflection of integration outcomes.
8. An analysis (not reported here) showed that these omitted cases were not fundamentally different from those that remain in the analysis (2591) with regard to relevant explanatory factors.
9. Therefore, perceived discrimination that the respondents attributed to their age, gender, sexual orientation, state of health, disability, and dress or appearance were omitted from this study.
10. Unfortunately, the data do not allow identifying people that perceive discrimination multiple times in one context. For that reason, in my main analysis, I avoided the use of the outcome other than a binary variable. Nonetheless, in the online supplement, I provide an additional analysis applying perceived discrimination as a continuous variable (Table S1 and S2). The results do not differ from those of the main analysis.
11. Due to the relatively short duration of stay, only a minority of 7.34% of the respondents improved their educational achievement in Germany.
12. An alternative distinction between more than two groups revealed no significant difference in perceived discrimination between respondents with primary, secondary, or no education. For this reason, I used the simplified version of binary categories.
13. I prefer this objective measure of language skills because research has shown that measures of self-assessed language proficiencies are systematically biased due to certain groups' overestimation of their abilities (Edele et al. 2015, 113).
14. Respondents who had a job in their origin or receiving country but no employment in the other country are assumed to be 'very dissatisfied' with not being employed.
15. An overview of the exact operationalisation of all the model variables is provided in the appendix (Table A1). An overview of all correlations of the mediating variables is also shown in the appendix (Table A2).
16. The value for reporting social immobility is negative; that is, rather than mediation, these results point to suppression.
17. The terminology of 'bright' and 'blurred' boundaries refers to unambiguous and ambiguous locations on one or both sides of a boundary (Alba 2005, 22).
18. In the online supplement, an additional analysis shows how the mediators introduced relate to perceived group discrimination as an alternative dependent variable (Tables S1 and S3).

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Appendix

Table A1. Model variables used in the analyses.

Variables and original questions	Values
Dependent variable	
<i>Perceived discrimination:</i>	
Since you moved to Germany, ...	(0) No perceived discrimination
... have you been turned down for a job or a job interview?	(1) Perceived discrimination
... have you been refused on a rental or housing application, or denied a place in a hostel or shared accommodation?	
... have you ever experienced bad treatment at official institutions in Germany, such as rudeness or having to wait longer than the usual time for assistance or documents?	
... have you ever been yelled at, spat on, or experienced physical violence in a public place from a stranger?	
What do you think was the main reason for this?	
Independent variable	
<i>Education:</i>	
What is the highest level of education you achieved in Poland/Turkey?	(0) None, primary or secondary education
What is the highest level of education you achieved in Germany so far?	(1) Tertiary education
Mediating variables	
<i>Main activity:</i>	
Are you currently working, unemployed, in education, retired, long term sick or disabled, looking after the home or children, on maternity or paternity leave, or anything else?	(0) Other activity
	(1) Working or in education
<i>Participation in associations:</i>	
Are you involved in ...	(0) No participation in or segregated associations (more than 50% co-ethnics)
... a sports club or team?	(1) Participation in integrated associations (less than 50% co-ethnics)
... in a political organisation?	
... a religious group?	
... another group or organisation?	
How many of the other people who participate in this group are from Poland/Turkey?	
<i>Neighbourhood:</i>	
When you are thinking about the local area, how many people living there are from Germany?	(0) Living in a segregated neighbourhood (more than 50% co-ethnics)
	(1) Living in an integrated neighbourhood (less than 50% co-ethnics)
<i>Previous trips to Germany:</i>	
Before you moved to Germany this time - had you spent a period of more than four weeks in Germany?	(0) Spend no time in Germany before moving
	(1) Spend time in Germany before moving
<i>German-language proficiency:</i>	
Did you learn German in school/college in Poland/Turkey?	(0) Non-existent
	(1) Existent
<i>Reading German newspapers:</i>	
How often do you read German printed or online newspapers?	(0) never
	(1) less often
	(2) once or twice a week
	(3) several times a week
	(4) every day
<i>Interested in German politics:</i>	
Can you name political parties that are represented in the German National Parliament?	(0–5) Number of political parties named
<i>Highly educated friends:</i>	

(Continued)

Table A1. Continued.

Variables and original questions	Values
Let us talk a little more about the people who are important to you personally and who you feel close to that live in Germany. Please do not include your parents, your husband/wife or your children, but you can include other relatives. How many people are you thinking of? We are interested in knowing a bit more about backgrounds of these people. What is the level of education of this person?	(0–1) Proportion of highly educated friends
<i>Social mobility:</i> And besides your earning, how satisfied were you with your last job in Poland/Turkey? Beside earnings, how satisfied are you with your job?	(0) Upward mobility (1) No mobility (2) Downward mobility
<i>Pre-post comparison of living situation:</i> When you compare your current living situation with your living situation when living in Poland/Turkey, is your current living situation much better, better, about the same, worse or much worse than your living situation in Poland/Turkey?	(1) Improved (2) Not improved

Source: SCIP-project.

Table A2. Correlation coefficients of all mediating variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Main activity	–									
(2) Participation in associations	–.04*	–								
(3) Neighbourhood	.04	.06*	–							
(4) Previous trips to Germany	.12*	.02	.01	–						
(5) German-language proficiency	.07*	.13*	.16*	.10*	–					
(6) Reading German newspapers	.00	.15*	.13*	.10*	.13*	–				
(7) Interested in German politics	–.00	.15*	.11*	.17*	.13*	.35*	–			
(8) Highly educated friends	–.05*	.22*	.09*	.03	.27*	.19*	.22*	–		
(9) Social mobility	.37*	.00	.01	.11*	.06*	–.03	–.04*	–.02	–	
(10) Pre-post comparison of living situation	.02	.00	.08*	.02	.10*	.04*	.06*	.07*	.01	–

Note: Phi, Cramer's V or Spearman's correlation coefficients are reported; * $p < .05$.

Source: SCIP-project, own calculations (after multiple imputation).

Table A3. Multivariate analyses on immigrants' perceived discrimination by ethnicity.

	M5a: Integrated model (Poles)			M5b: Decomposition (Poles)	M6a: Integrated model (Turks)			M6b: Decomposition (Turks)
Independent variable								
Education (ref. = primary or secondary)								
Total effect		0.28*				0.42**		
Direct effect		0.13				0.20		
Indirect effect		0.15**				0.22**		
Mediating variables	I-M	M-D	I-D		I-M	M-D	I-D	
Main activity (ref. = other activity)	–0.15	0.18	–0.03	1.27%	0.05	–0.04	–0.00	0.18%
Participation in associations (ref. = no or segregated)	0.66**	0.30	0.20	8.37%	0.87***	0.52*	0.46 ⁺	16.40% ⁺
Neighbourhood (ref. = segregated)	0.70***	–0.09	–0.06	–2.64%	0.63***	0.06	0.04	2.90%
Previous trips to Germany (ref. = none)	0.09	0.42**	0.04	7.65%	0.56***	0.15	0.09	5.97%
German-language proficiency (ref. = none)	0.94***	0.08	0.07	10.59%	1.45***	–0.02	–0.03	–1.90%
	0.60***	0.07	0.04	22.54%	0.43**	0.05	0.02	9.24%

(Continued)

Table A3. Continued.

	M5a: Integrated model (Poles)			M5b: Decomposition (Poles)	M6a: Integrated model (Turks)			M6b: Decomposition (Turks)
Reading German newspapers (ref. = never)								
Interested in German politics (ref. = not interested)	0.74***	0.01	0.00	0.20%	1.26***	0.04	0.05	13.06%
Highly educated friends (ref. = none)	0.73***	0.34 ⁺	0.25 ⁺	31.56% ⁺	1.13***	0.17	0.20	23.32%
Social mobility (ref. = upward mobility)								
No mobility	−0.18	0.14	−0.02	−3.44%	−0.37**	0.23	−0.09	−8.46%
Downward mobility	0.50***	0.36 *	0.18 ⁺	23.08% ⁺	0.31*	0.45	0.14	13.90%
Pre-post comparison of living situation (ref. = improved)	0.28*	0.03	0.01	0.83%	0.59***	0.45**	0.26*	25.38%*
Control variables								
Gender (ref. = male)		0.18				−0.36*		
Age (in years)		−0.01				−0.01		
Length of stay (in months)		0.04**				0.03		
Observations		1477				1114		
AIC		1488.435				1195.082		

Notes: ⁺ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$; all models control for city of interview (effects are not reported). M5a and M6a: Generalised structural equation models; unstandardised coefficients. M5b and M6b: decomposition of the indirect effect of education on immigrants' perceived discrimination based on KHB method. I-M: direct effect of independent on mediating variable; M-D: direct effect of mediating on dependent variable; I-D: indirect effect of independent on dependent variable.

Source: SCIP-project, own calculations.