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# Discrimination against Turkish minorities in Germany and the Netherlands: field experimental evidence on the effect of diagnostic information on labour market outcomes

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## ABSTRACT

Previous studies have found that the labour market outcomes of Turkish minorities are slightly better in Germany than in the Netherlands. In this paper we test one of the explanations: differences in ethnic discrimination in hiring. We use a harmonised field experiment to test whether discrimination against job candidates of Turkish origin (age 23–25) varies across Germany and the Netherlands, while holding individual characteristics of job seekers constant. We find that, compared to majority candidates, job candidates of Turkish origin are on average eleven percentage points less likely to receive a positive call-back. Moreover, we find that discrimination against Turkish minorities is significantly higher in the Netherlands than in Germany. In Germany, job candidates of Turkish origin are five percentage points less likely to receive a call-back than equally qualified majority candidates, whereas in the Netherlands this ethnic gap is fifteen percentage points. However, the presented evidence does not support the often-mentioned argument that the amount of diagnostic information in application materials explains why discrimination against Turkish minorities is lower in Germany. Overall, adding diagnostic information has little effect on the relative employment chances of job applicants of Turkish origin, both in Germany and the Netherlands.


## KEYWORDS

Ethnic discrimination; hiring; cross-national research; diagnostic information; field experiment; Turkish minorities

## Introduction

In this study, we assess differences in the level of hiring discrimination against Turkish minorities between Germany and the Netherlands. Turkish minorities in Germany and the Netherlands share a similar migration history. Many came during the guest worker programmes in the 1960s and 1970s or as family migrants in the late 1970s and 1980s (Akgunduz 1993). In both countries, Turkish minorities attract much attention from the public and policy makers partly because these groups face substantial disadvantage in the labour market (e.g. Fleischmann and Höhne 2013; Gracia, Vázquez-Quesada,

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and Van de Werfhorst 2016; Huijnk and Andriessen 2016; Luthra 2013). A small number of studies compared the employment positions of Turkish minorities cross-nationally. Interestingly, these studies find evidence that the relative employment position of Turkish minorities in Germany is slightly better than it is in the Netherlands (e.g. Dagevos et al. 2006; Euwals et al. 2007; Heath, Rethon, and Kilpi 2008; Van Tubergen 2006). This raises the question as to why that is the case and whether this might be due to different levels of ethnic discrimination in hiring decisions.

So far, previous research has paid little attention to these questions. The handful of studies that have investigated differences in the relative employment positions of Turkish minorities in Germany and the Netherlands could not properly assess whether employment discrimination influences Turkish minorities differently in both countries. The ethnic gaps found both within as well as between countries could be affected by unmeasured productivity-relevant characteristics of individuals – such as differences in career aspirations, cognitive skills, or social networks – but also by differences in survey methodologies (Pager and Shepherd 2008; Van Tubergen 2006). Audit studies circumvent the problem with unobserved heterogeneity by comparing the employment chances of equally qualified, fictitious job candidates from different ethnic groups (Pager and Shepherd 2008). Using field experimental data, several studies find evidence of discrimination against people with a Turkish background in Germany and the Netherlands (Andriessen et al. 2012; Andriessen 2012; Goldberg, Mourinho, and Kulke 1995; Kaas and Manger 2012; Panteia 2015; Schneider, Yemane, and Weinmann 2014; Weichselbaumer 2016; Koopmans, Veit, and Yemane 2018). However, in these audit studies scholars used different research designs, focused on different segments of the labour market, and moreover they were conducted in different time periods (Zschirnt and Ruedin 2016). It is therefore difficult to make comparisons between studies, let alone to draw firm conclusions about the possible differential impact of ethnic discrimination on economic outcomes of Turkish minorities across countries.

In this study, we aim to contribute to this stream of research in two important ways. First, we analyse data from a cross-nationally harmonised correspondence audit study that was conducted in Germany and the Netherlands (Lancee, Birkelund, Coenders, Di Stasio, Fernández Reino, Heath, Koopmans, Larsen, Polavieja, Ramos, Soiné, et al. 2019). By employing the same field experimental design, we can more strictly compare discrimination rates of Turkish minorities – 1.5th and 2nd generation, young jobseekers with few years of work experience – in the first stages of the hiring process between two important destination societies for Turkish migrants, while ruling out that individual characteristics of jobseekers affect the estimates of ethnic discrimination. Therefore, the findings of this study can add to our understanding of how characteristics of the destination country, and more specifically, the different ‘modes of incorporation’ (Portes, Fernández-Kelly, and Haller 2009; Portes and Rumbaut 2001) affect the employment chances of a similar origin group in different national contexts.

Second, in addition to describing cross-national differences in the level of hiring discrimination against Turkish minorities in Germany and the Netherlands, we focus on one potential factor affecting these differences: the amount of information provided in application documents. Recently, it has been proposed that ethnic discrimination is lower in countries where job applicants are required to send detailed personal information in job applications (Weichselbaumer 2017; Zschirnt and Ruedin 2016). Because of the large

amount of personal information available to employers, they would rely less on group characteristics to assess individual job candidates (Arrow 1973; Phelps 1972), and hence overall discrimination rates are expected to be lower. As application documents in Germany provide more detailed information about job applicants than those in the Netherlands, employers in Germany are expected to discriminate less against job applicants of Turkish origin. To empirically test whether these information deficiencies in resumes can affect cross-national differences in discrimination rates against Turkish minorities, we experimentally vary the amount of personal information provided in the application documents cf. (Agerström et al. 2012; Kaas and Manger 2012). By doing so, we can analyse (1) whether adding personal information in resumes reduces ethnic discrimination in hiring and (2) whether this effect is stronger in the Netherlands (a hiring context where less individual information is available to employers) than in Germany (a hiring context where more individual information is available to employers). Moreover, we manipulated three types of information across resumes: the picture on the CV, the average final grade in educational training, and the performance in previous job. By varying these types of information, we respond to recent calls to examine how the presence of different forms of information affect ethnic discrimination in hiring decisions (Bertrand and Duflo 2017).

This paper proceeds as follows. First, we review previous research on the impact of personal information on ethnic discrimination and elaborate how this might affect cross-national differences in discrimination rates. Then, we present the data and methods and the empirical results and conclude by discussing the implications and limitations of the findings.

## Theoretical background

An increasing volume of studies have been published that examined ethnic discrimination in hiring using field experiments (Bertrand and Duflo 2017; Guryan and Charles 2013). A recent meta-analytical analysis by Zschirnt and Ruedin (2016) indicates that ethnic minority job candidates are 49 percent less likely to receive a call-back than majority candidates. Furthermore, this study finds that compared to other OECD countries, such as the Netherlands, discrimination rates are lower in German-speaking countries. This effect remains significant even after controlling for differences in occupational skill levels tested in different field experiments. In this regard, Zschirnt and Ruedin indicate that there could be a relationship between the amount of personal information provided to employers in German-speaking countries and the level of employment discrimination, lending support to statistical discrimination theory.

Statistical discrimination theory (Arrow 1973; Phelps 1972) presumes a direct link between the quantity and quality of the available information in resumes and the existence of ethnic discrimination in recruitment decisions. According to the theory, employers strive to select the best candidate for an open job position but have incomplete information about the true productivity of applicants because application documents only provide a vague idea of what someone's qualities and knowledge are. Employers consequently use group characteristics in recruitment decisions because the level of productivity of a group is supposedly predictive for the productivity of an individual job applicant. Because employers often have the impression that ethnic minority groups are, on average, less productive than the majority group, the productivity of the ethnic minority

candidate is valued lower than that of the native candidate. This leads to ethnic discrimination in hiring decisions.

From statistical discrimination theory it can be derived that ethnic discrimination will decrease when employers have more information about job applicants' skills, and work experiences. In this specific respect, Zschirnt and Ruedin (2016) point to an important difference between German-speaking countries and other countries, such as the Netherlands, that could be relevant for explaining variation in discrimination rates cross-nationally: the norms regarding job applications. In contrast to other countries, in German-speaking countries there are strict norms about which documents and information job applicants have to provide (Weichselbaumer 2017; Zschirnt and Ruedin 2016). In addition to a CV with information about their educational and professional trajectory and a cover letter, job applicants in Germany must add copies of their school and training certificates, a picture, and sometimes even a reference letter from previous employer(s). As a result, employers in Germany have more information about job candidates than those in the Netherlands, suggesting that employers in Germany should rely less on group information and stereotypes in recruitment decisions.

One important drawback of the analysis of Zschirnt and Ruedin (2016) is that they did not compare the same ethnic minority group across countries. Accordingly, one reason why they might have found lower discrimination rates in German-speaking countries could be cross-national differences in the selection of examined ethnic minority groups. However, by focusing on Turkish minorities, this study compares the same ethnic minority group in two different countries and consequently provides more valid insights regarding the impact of the national context. That being said, in line with aforementioned theoretical and empirical arguments, we expect that (H1): *Job candidates of Turkish origin face more discrimination in the Netherlands than in Germany.*

In our field experiment, we used similar application materials in Germany and the Netherlands. One difference is, however, that German application materials must also include school leaving certificates from high school and vocational training, resulting in a higher baseline level of personal information in Germany. Given these differences in baseline characteristics, this allows us to investigate whether the negative effect of adding individual information on ethnic discrimination differs between Germany and the Netherlands. However, before deriving clear theoretical expectations, we first discuss previous research on the effects of individual information on ethnic discrimination in decision-making processes.

The effectiveness of adding information to reduce ethnic discrimination has been subject to an increasing body of research. First, several laboratory experiments show that providing decision-makers with more personal information reduces discrimination against ethnic or racial minorities (Lane 2016). For example, Rubinstein, Jussim, and Stevens (2018) find that personal information has a strong positive impact on personal evaluations and decreases biases resulting from racial stereotypes. This holds particularly true for personal information that is diagnostic – that is, highly predictive information – for the dimension that is evaluated. In a series of experiments, subjects were asked to evaluate the college applications of Black and White candidates. The subjects were randomly assigned to three conditions: one in which no personal information was provided, one in which only the name and demographic information was provided (little diagnostic), and one in which educationally-relevant information was provided (e.g. test results on

cognitive skills: highly diagnostic). In these experiments, the authors find that explicit and implicit stereotype bias was lower when subjects were given more diagnostic information about the candidates (Rubinstein, Jussim, and Stevens 2018). In addition, Castillo and Petrie (2010) and Masclet, Peterle, and Larribeau (2013) observe that the introduction of diagnostic information about ability and competitiveness strongly diminishes ethnic and racial discrimination in public goods games and recruitment tasks, respectively, suggesting that discrimination is to a large extent attributed to incomplete information.

Field studies, too, have examined whether ethnic discrimination is lower when fictitious applicants for a job or an apartment introduce more personal information in their application materials. Experimental studies on ethnic and racial discrimination in the housing market and sharing economy, however, yield inconsistent evidence (for an overview, see Flage 2018). For example, analysing data from a field experiment on ethnic discrimination in the Swedish housing market, Ahmed, Andersson, and Hammarstedt (2010) find no evidence that ethnic discrimination is lower when fictive housing seekers provide diagnostic personal information (age, relationship status, educational and occupational background, smoking behaviour, and availability of references) when applying for an apartment. In the United States, Ewens, Tomlin, and Wang (2014) obtain similar results regarding the effect of adding personal information on racial discrimination in the rental apartment market. In contrast, Cui, Li, and Zhang (2017) find that discrimination decreases when a higher level of diagnostic information is available to potential hosts on Airbnb. Discrimination was only reduced when positive or negative (online) reviews by others were available while self-claimed personal information did not reduce racial discrimination.

Furthermore, a small number of studies investigated the effect of providing diagnostic individuating information on ethnic discrimination in hiring. Kaas and Manger (2012) studied the chances of applicants with typically Turkish-sounding and German-sounding names in their search for student internships. They provide tentative evidence suggesting that ethnic discrimination decreases when application documents include a reference letter that provides diagnostic information about the personality of the job applicant. By contrast, a Swedish experiment by Agerström et al. (2012) shows that adding personal information that signals a warm personality and competence increases call-back rates for native applicants as well as for job applicants with Arabic-sounding names alike; thus, not decreasing ethnic discrimination. One important shortcoming of both studies is that the information manipulations used are not completely independent of other resume characteristics (CV type and hobbies, respectively). Strictly speaking, both studies could not test whether the returns to the inclusion of information differs causally between majority and minority job applicants. Lastly, by drawing on data of a correspondence study in Mexico, Arceo-Gomez and Campos-Vazquez (2014) analysed racial gaps in call-backs using application materials with and without a picture. Among women, they find that white and mestizo (mixed-race, light-brown skin) applicants are more likely to receive a call-back than indigenous applicants (dark-brown) and applicants without a picture. Among men, however, no differences were found across the four groups. These findings provide mixed evidence but suggest that the inclusion of a picture could also lead to more discrimination based on the phenotype of an applicant.

In summary, previous research on hiring discrimination provides inconsistent results, possibly because scholars did not always use completely randomised designs. By using a completely randomised design, we therefore test whether (H2): *Adding diagnostic*

*information in resumes decreases discrimination against job candidates of Turkish origin.* And finally, given the baseline differences in the amount of personal information in the German and Dutch application materials, we also investigate whether (H3): *Adding diagnostic information in resumes decreases discrimination against job candidates of Turkish origin more strongly in the Netherlands than in Germany.*

## Data and methods

### Data

In this study, we examine discrimination rates in Germany and the Netherlands by drawing upon data from a cross-nationally harmonised correspondence study that was collected between November 2016 and October 2017 (Lancee, Birkelund, Coenders, Di Stasio, Fernández Reino, Heath, Koopmans, Larsen, Polavieja, Ramos, Soiné, et al. 2019). To make applications comparable, all application materials were standardised with similar cover letters and CV's across countries. The cover letter includes information about the job applicant's age (23–25), contact details (e.g. postal and email address, telephone number), prior education and work experience (e.g. prior jobs & tasks), and the applicant's motivation to apply for a new job. All job applicants were employed at the time of applying, although this was not emphasised in the CV or cover letter. Fictitious job applicants applied to job positions (low to medium-skilled jobs, see below) that were posted on the most commonly used online job portals. We made use of an unpaired design: only one application was sent to a company (cf. Weichselbaumer 2017). This decreases the risk of detection but also enables the researcher to accommodate a range of different experimental treatments (see also Lancee 2021). Lastly, to minimise the burden for employers, we kindly withdrew the application (within one day) after the employer contacted the job applicant. In total, we sent out 1587 applications: 652 in Germany and 935 in the Netherlands (see Table 1).

**Table 1.** Descriptive statistics (proportions).

	Germany	The Netherlands
Call-back	0.54	0.49
Turkish	0.31	0.29
Picture included	0.79	0.36
Grade included	0.49	0.52
Performance included	0.50	0.52
Female	0.49	0.47
Advertisement fit		
Fit	0.71	0.81
Underqualified	0.13	0.09
Overqualified	0.17	0.10
Occupation		
Cook	0.17	0.28
Payroll clerk	0.13	0.18
Receptionist	0.16	0.09
Sales representative	0.15	0.14
Software developer	0.16	0.15
Store assistant	0.15	0.13
Hairdresser	0.08	0.03
Observations	652	935

Source: GEMM, 2019.



For a more elaborate discussion of the data, please see the Introduction of this special issue (Lancee 2021), the GEMM codebook (Lancee, Birkelund, Coenders, Di Stasio, Fernández Reino, Heath, Koopmans, Larsen, Polavieja, Ramos, Soiné, et al. 2019), and the technical report (Lancee, Birkelund, Coenders, Di Stasio, Fernández Reino, Heath, Koopmans, Larsen, Polavieja, Ramos, Thijssen, et al. 2019).

### *Dependent variable*

The dependent variable is whether the fictitious applicant received a positive call-back. Specifically, we coded personal requests for additional information, and (pre-) invitations for a job interview as 1, no positive responses or no responses at all were coded as 0. In total, 813 (351 in Germany, 462 in the Netherlands) applications received a positive response from an employer (51.2%). There are no significant differences regarding absolute call-back rates between Germany and the Netherlands. This signals equally favourable economic conditions in both countries and that application materials were of comparable quality.

### *Independent variables*

**Ethnicity.** Turkish origin was randomly assigned to the application materials, although majority job candidates are slightly oversampled compared to candidates of Turkish origin (approximately 70% is native majority, 30% is Turkish minority). Recent research shows that correspondence audits in the past did not always clearly signal the ethnic origin of the applicant (Gaddis 2017). To ensure that employers could clearly identify the ethnic origin of the applicant, we signalled ethnic origin in a number of ways: (1) by a job applicant's first- and last name, (2) by indicating next to German/Dutch also Turkish as a mother tongue, and (3) by adding a passage in which the minority candidate states that he or she has a Turkish background but completed all education in Germany or the Netherlands. The latter was done to exclude the possibility that employers would be less inclined to invite job applicants of Turkish origin for lacking country-specific human capital (Oreopoulos 2011).

**Diagnostic personal information.** We also examine the impact of adding diagnostic information in resumes in Germany and the Netherlands by manipulating three types of information in resumes: picture, grades, and labour market performance. However, it is important to note that the baseline level of diagnostic information is higher for job applications in Germany where it is common to include school leaving certificates from high school and vocational training.

**Picture.** In Germany, almost all applications included a picture of the applicant (approximately 80% of all applications) as this is the norm when applying for a job. In the Netherlands, however, it is less common to include a picture. We therefore included a picture for a smaller subset of job candidates (approximately 35% of all applications). For the Netherlands, it is therefore interesting to consider the consequence of adding a picture. On the one hand, the inclusion of a picture may trigger discrimination against Turkish minorities by raising the salience of the applicant's Turkish origin (cf. Arceo-Gomez and Campos-Vazquez 2014; Weichselbaumer 2016, 2017). On the other hand, a picture might also provide individuating information that weakens the effect of group characteristics and



ethnic stereotypes (Rubinstein, Jussim, and Stevens 2018; Tjaden, Schwemmer, and Khadjavi 2018).

*Grades.* In both countries, we randomly varied whether or not the average final grade was added to application materials as an indicator for a job applicant's productivity. The average final grade was mentioned in the CV (i.e. a good grade) in approximately 50 percent of all applications. In Germany the applications also included school and job training certificates, while in the Netherlands no school leaving certificates were added as this would be a violation of application norms. Therefore, the inclusion of grades in the CV is presumably less distinctive in Germany than it is in the Netherlands.

*Performance.* In both countries, we randomly assigned whether job applicants provided additional diagnostic information about their job performance (50% of all applications). In the additional information condition, job applicants described themselves as being a hard-working person who is responsible for training new employees. Furthermore, in the cover letter and CV, job applicants listed additional tasks and responsibilities they took over in their prior job. This information manipulation is comparable with manipulations used in previous research (see Agerström et al. 2012).

### Control variables

We include the following variables as controls: *Gender* was randomly assigned to fictitious job applicants (approximately 50% of all fictitious job applicants was male, 50% was female). We further control for *occupations* by including fixed effects for cook, payroll clerk, receptionist, sales representative, software developer, store assistant, and hairdresser. We also take into account the effect of *perceived advertisement fit*. Perceived advertisement fit is based on perceptions of the fit between a fictitious job candidate and the requirements mentioned in the job advertisement and was coded in three categories: the job candidate is slightly underqualified; a decent fit between the candidate and the job requirements, or the candidate is slightly overqualified. All descriptive information is displayed in Table 1.

### Methods

To test our hypotheses, we estimate linear probability regression models. First, we investigate whether the likelihood to receive a call-back from an employer depends on the ethnic origin of the job candidate, the country, and the interaction term between both variables (see Table 2). Subsequently, we examine whether the provision of diagnostic information (i.e. picture, grade, or performance) affects ethnic gaps in call-backs and furthermore whether these effects vary between the Netherlands and Germany (see Tables 3 and 4). By doing so, we include the two-way interaction term between the specific information treatment and having a Turkish origin (Table 3), and the three-way interaction term between the specific information treatment, Turkish origin, and country in addition to the main effects (Table 4). In all models, we control for gender, perceived advertisement fit, and occupation fixed-effects.

### Results

In Model 1 of Table 2 we estimate the effect of having a Turkish origin on the likelihood to receive a call-back for the full sample (Germany and Netherlands) with country fixed-

**Table 2.** Linear probability regression predicting the likelihood to receive a call-back.

	Model 1 Full sample	Model 2 Full sample + interaction	Model 3 Germany	Model 4 the Netherlands
Turkish (ref = majority)	-0.108*** (0.025)	-0.046 (0.039)	-0.060 (0.039)	-0.153*** (0.032)
Netherlands (ref = Germany)	-0.015 (0.026)	0.018 (0.030)		
Turkish * Netherlands		-0.106* (0.051)		
Picture included (ref = no picture included)	0.089*** (0.025)	0.090*** (0.025)	0.031 (0.043)	0.117*** (0.030)
Grade included (ref = no grade included)	-0.034 (0.023)	-0.033 (0.023)	0.022 (0.036)	-0.057~ (0.029)
Performance included (ref = no performance included)	0.026 (0.023)	0.026 (0.023)	0.024 (0.036)	0.023 (0.029)
Female (ref = males)	0.086*** (0.023)	0.087*** (0.023)	0.124*** (0.036)	0.054~ (0.029)
Advertisement fit (ref = fit)				
Underqualified	-0.092** (0.035)	-0.097** (0.035)	0.047 (0.050)	-0.223*** (0.045)
Overqualified	0.040 (0.037)	0.039 (0.037)	0.022 (0.056)	0.025 (0.051)
Occupation fixed effects	Yes	Yes	Yes	Yes
Constant	0.668*** (0.042)	0.648*** (0.043)	0.600*** (0.066)	0.710*** (0.041)
Observations	1587	1587	652	935
R <sup>2</sup>	0.193	0.196	0.191	0.232

Source: GEMM, 2019.

Note: Standard errors in parentheses (two-sided).

Model 1 and model 2 present the results of the full sample. Model 3 only uses observations of the German field experiment, while model 4 only uses observations of the Dutch field experiment.

~ $p < 0.10$ , \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

effects and the control variables gender, advertisement fit, and occupation fixed-effects. Model 1 shows that applicants of Turkish origin are less likely to receive a positive response than majority applicants. This statistically significant difference of eleven percentage points shows that job applicants of Turkish origin are discriminated against.

In model 2 (Table 2) we include an interaction term between having a Turkish origin and country to test our first hypothesis, contending that the penalty for having a Turkish origin is larger in the Netherlands than it is in Germany. Based on model 2, we predict the probability to receive a positive call-back for majority job candidates and candidates of Turkish origin in both Germany and the Netherlands (see Figure 1). In Germany, 53 percent of the majority candidates received a positive response from the employer, while this was only the case in 49 percent of the cases for the candidates of Turkish origin. The likelihood to receive a positive call-back for candidates of Turkish origin is approximately five percentage points lower than that of majority job candidates. The magnitude of this negative effect is comparable with those reported in previous studies in Germany (e.g. Kaas and Manger 2012; Koopmans, Veit, and Yemane 2018; Weichselbaumer 2016), although not statistically significant. This result stands in contrast to the Netherlands where the probability to receive a positive response is 55 percent for majority candidates, and 40 percent for candidates of Turkish origin. This gap of about 15 percentage points is almost three times the size of the gap in Germany. Moreover, the negative

**Table 3.** Linear probability regression examining the interaction effect between information condition and Turkish origin.

	Full sample			Germany			The Netherlands		
	Model 1 + two-way interaction with picture	Model 2 + two-way interaction with grade	Model 3 + two-way interaction with performance	Model 4 + two-way interaction with picture	Model 5 + two-way interaction with grade	Model 6 + two-way interaction with performance	Model 7 + two-way interaction with picture	Model 8 + two-way interaction with grade	Model 9 + two-way interaction with performance
Turkish (ref = majority)	-0.153*** (0.036)	-0.094** (0.035)	-0.143*** (0.036)	-0.110 (0.081)	-0.030 (0.053)	-0.112* (0.056)	-0.182*** (0.040)	-0.149** (0.047)	-0.176*** (0.047)
Netherlands (ref = Germany)	-0.016 (0.026)	-0.015 (0.026)	-0.015 (0.026)						
Picture included (ref = no picture included)	0.062* (0.029)	0.089*** (0.025)	0.088*** (0.025)	0.007 (0.052)	0.029 (0.043)	0.025 (0.043)	0.093** (0.035)	0.117*** (0.030)	0.117*** (0.030)
Grade included (ref = no grade included)	-0.033 (0.023)	-0.025 (0.027)	-0.033 (0.023)	0.023 (0.036)	0.042 (0.044)	0.024 (0.036)	-0.056~ (0.029)	-0.055 (0.034)	-0.057~ (0.029)
Performance included (ref = no performance included)	0.025 (0.023)	0.026 (0.023)	0.007 (0.027)	0.022 (0.036)	0.023 (0.036)	-0.006 (0.043)	0.023 (0.029)	0.023 (0.029)	0.011 (0.034)
Female (ref = males)	0.089*** (0.023)	0.087*** (0.023)	0.086*** (0.023)	0.126*** (0.036)	0.125*** (0.036)	0.123*** (0.036)	0.055~ (0.029)	0.054~ (0.029)	0.053~ (0.029)
Advertisement fit (ref = fit)									
Underqualified	-0.092** (0.035)	-0.092** (0.035)	-0.094** (0.035)	0.050 (0.051)	0.048 (0.050)	0.046 (0.050)	-0.223*** (0.045)	-0.223*** (0.045)	-0.225*** (0.045)
Overqualified	0.040 (0.037)	0.040 (0.037)	0.039 (0.037)	0.020 (0.056)	0.025 (0.056)	0.021 (0.055)	0.027 (0.051)	0.025 (0.051)	0.024 (0.051)
Occupation fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Turkish * picture included	0.087~ (0.050)			0.065 (0.093)			0.084 (0.068)		
Turkish * grade included		-0.029 (0.050)			-0.064 (0.078)			-0.007 (0.065)	
Turkish * performance included			0.065 (0.050)			0.098 (0.078)			0.042 (0.065)
Constant	0.683*** (0.042)	0.663*** (0.042)	0.678*** (0.042)	0.619*** (0.070)	0.589*** (0.068)	0.619*** (0.067)	0.719*** (0.041)	0.709*** (0.042)	0.716*** (0.042)
Observations	1587	1587	1587	652	652	652	935	935	935
R <sup>2</sup>	0.195	0.193	0.194	0.192	0.192	0.193	0.234	0.232	0.233

Source: GEMM, 2019.

Note: Standard errors in parentheses (two-sided).

Model 1, 4, and 7 include the interaction term between picture and Turkish origin. Model 2, 5, and 8 include the interaction term between grade and Turkish origin. Model 3, 6, and 9 include the interaction term between performance and Turkish origin.

~ $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

**Table 4.** Linear probability regression examining the interaction effect between information condition, Turkish origin, and country.

	Model 1 + three-way interaction with picture	Model 2 + three-way interaction with grade	Model 3 + three-way interaction with performance
Turkish (ref = majority)	−0.074 (0.083)	−0.022 (0.054)	−0.104~ (0.056)
Netherlands (ref = Germany)	−0.044 (0.051)	0.063 (0.039)	0.011 (0.040)
Turkish * Netherlands	−0.104 (0.093)	−0.124~ (0.071)	−0.068 (0.074)
Picture included (ref = no picture included)	0.018 (0.052)	0.088*** (0.025)	0.088*** (0.025)
Grade included (ref = no grade included)	−0.031 (0.023)	0.028 (0.044)	−0.032 (0.023)
Performance included (ref = no performance included)	0.025 (0.023)	0.025 (0.023)	−0.001 (0.043)
Female (ref = males)	0.090*** (0.023)	0.087*** (0.023)	0.086*** (0.023)
Advertisement fit (ref = fit)			
Underqualified	−0.097** (0.035)	−0.094** (0.035)	−0.098** (0.035)
Overqualified	0.039 (0.037)	0.037 (0.037)	0.038 (0.037)
Occupation fixed effects	Yes	Yes	Yes
Turkish * picture included	0.032 (0.094)		
Netherlands * picture included	0.080 (0.063)		
Turkish * Netherlands * picture included	0.046 (0.116)		
Turkish * grade included		−0.047 (0.078)	
Netherlands * grade included		−0.090 (0.055)	
Turkish * Netherlands * grade included		0.033 (0.102)	
Turkish * performance included			0.110 (0.078)
Netherlands * performance included			0.012 (0.055)
Turkish * Netherlands * performance included			−0.073 (0.102)
Constant	0.706*** (0.055)	0.618*** (0.046)	0.663*** (0.046)
Observations	1587	1587	1587
R <sup>2</sup>	0.198	0.197	0.197

Source: GEMM, 2019.

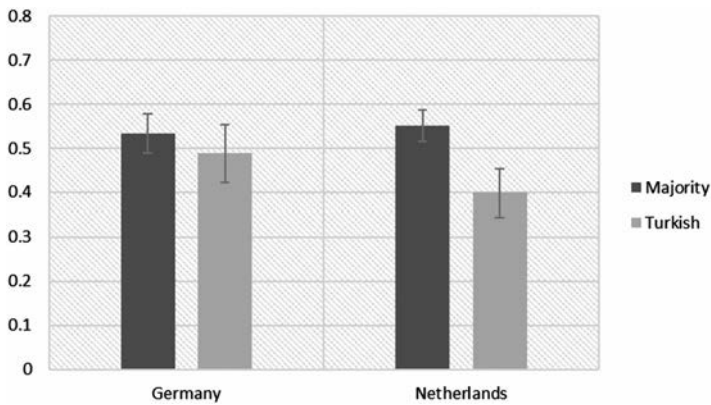
Note: Standard errors in parentheses (two-sided).

Model 1 includes the interaction term between picture and Turkish origin. Model 2 includes the interaction term between grade and Turkish origin. Model 3 includes the interaction term between performance and Turkish origin.

~ $p < 0.10$ , \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

interaction effect between having a Turkish origin and country is statistically significant at  $p < 0.05$ , and thus provides empirical support for hypothesis 1.<sup>1</sup>

Regarding the second and third hypotheses, we test whether ethnic discrimination is reduced when jobseekers introduce more diagnostic personal information in their resumes and whether this effect varies across countries. In Table 3, we first investigate the effects of adding a picture on the CV, including a good average final grade in the



**Figure 1.** Call-back rate by ethnic origin and country. Source: GEMM, 2019. Note: The bars show absolute call-back rates; all controls are included. Dark grey bars indicate the share of positive responses for majority job applicants; light grey bars indicate the share of positive responses for job applicants of Turkish origin. 95% confidence intervals are calculated.

CV, and providing performance information, both in the full sample (model 1–3), and the country sample (model 4–6 for Germany, and model 7–9 for the Netherlands).

As Table 3 shows, adding more diagnostic personal information to resumes does not decrease discrimination rates in the full sample (model 1–3). Only in model 1, we find a marginally significant interaction effect between having a Turkish origin and picture, indicating that the call-back gap between majority candidates and candidates of Turkish origin slightly decreases when a picture is included. However, this interaction effect as well as the interaction terms between the other types of information and Turkish origin are not statistically significant in the separate analyses for Germany (model 4–6) and the Netherlands (model 7–9).<sup>2</sup> Furthermore, Table 4 indicates no statistically significant interaction terms between having a Turkish origin, information, and country. Hence, we find no support for hypothesis 2 and 3.<sup>3</sup>

## Discussion and conclusion

In this study, we contribute to the literature by investigating hiring discrimination against Turkish minorities in Germany and in the Netherlands. Whereas previous research documents more unfavourable relative employment positions of Turkish minorities in the Netherlands than in Germany (Euwals et al. 2007; Van Tubergen 2006; Heath, Rethon, and Kilpi 2008), it could not adequately indicate whether this pattern might be due to different levels of ethnic discrimination. By using a harmonised correspondence study (Lancee, Birkelund, Coenders, Di Stasio, Fernández Reino, Heath, Koopmans, Larsen, Polavieja, Ramos, Thijssen, et al. 2019), we analysed whether job candidates of Turkish origin are treated differently in Germany than in the Netherlands in isolation of potential confounding individual characteristics. This design enables us to test whether ethnic discrimination has the potential to hinder the integration of one of the largest non-western minority groups in Europe in two major destination countries.

One central finding of this study is that discrimination rates vary between Germany and the Netherlands. In particular, we find that job applicants with a Turkish background in the Netherlands are significantly more disadvantaged than those in Germany. In the Netherlands, job candidates of Turkish origin are 15 percentage points less likely to receive a positive call-back than majority job candidates. In Germany the difference is five percentage points and although the effect sizes are comparable with those reported in previous field experiments (Kaas and Manger 2012; Koopmans, Veit, and Yemane 2018; Weichselbaumer 2016), we do not find clear evidence that job candidates with a Turkish background have significantly lower chances of receiving a call-back than majority candidates in Germany. Moreover, the results indicate a substantial cross-national difference in discrimination rates: the ethnic gap in call-back rates is almost eleven percentage points higher in the Netherlands than it is in Germany. This study therefore sheds more light on how the relative employment position of young, qualified Turkish minorities could be differently affected by the barriers imposed by employers in two different national contexts.

A second important finding relates to a potential explanation for these cross-national differences in discrimination rates. In particular, the finding that discrimination against job candidates of Turkish origin is higher in the Netherlands than in Germany aligns with the idea that overall discrimination rates are lower in German-speaking countries because of the vast amount of personal information provided in job applications (Zschirnt and Ruedin 2016; Weichselbaumer 2017). According to this idea derived from statistical discrimination theory (Arrow 1973; Phelps 1972), employers in German-speaking countries need to resort less to (negative) group characteristics to evaluate the productivity and motivation of individual job applicants, which in turn results in lower levels of ethnic discrimination in hiring decisions as employers have more diagnostic information at their hand to assess the fit of the individual applicant. In this study, we aimed to test this argument empirically by examining whether a larger amount of diagnostic personal information in resumes decreases ethnic discrimination generally, but particularly in the Netherlands where less extensive application documents are the norm and hence the baseline level of personal information is lower. However, despite varying different types of information in the CV and cover letter (more diagnostic as well as less diagnostic information), we do not find clear evidence that the provision of additional diagnostic personal information reduces discrimination against Turkish job candidates in the Netherlands or in Germany.

Together, these empirical findings are in line with the results of the meta-analytical review by Zschirnt and Ruedin (2016), but also leave open an important question as to why employment discrimination against Turkish minorities is higher in the Netherlands than in Germany.<sup>4</sup> Theoretically, one reason why we did not find strong effects of adding personal information in the Netherlands or in Germany could be the strength of the information treatments. However, the fact that these treatments are similar to those used in previous field experiments e.g. (Kaas and Manger 2012; Agerström et al. 2012; Koopmans, Veit, and Yemane 2018), and that many of these studies also find inconsistent evidence with regard to the added value of this information for minority applicants, makes us consider a few alternative explanations that might also have face validity. First, there is the possibility that individual information does actually matter, but that due to the application norms in Germany and the Netherlands, we were not able to directly measure the effect of

the type of information that is most determinant for explaining country differences in discrimination rates, namely sending copies of school reports and diplomas. These official documents potentially offer employers more reliable and verifiable information about job applicants than manipulations of the average final grade and past performance (and to a lesser extent the picture on the CV). Thus, sending copies of school and training certificates could give employers an extra positive signal about the reliability of the personal information provided, possibly reducing the weight of ethnicity in hiring decisions.

A radically different interpretation of these findings – and one in line with taste-based theories of discrimination (Becker 1957) – could be that differences in conscious or unconscious prejudice or negative stereotypes (Quillian 2006; Bertrand and Duflo 2017) can explain the different levels of ethnic discrimination in Germany and the Netherlands (see also Di Stasio et al. 2021). Yet, survey research does not clearly indicate that levels of prejudice and negative stereotypes about Turkish minorities are more prevalent in the Netherlands than in Germany (Wike, Stokes, and Simmons 2017; European Commission 2018). In fact, there are reasons to suspect that the Turkish minorities could be more stigmatised in Germany as they are the largest and most negatively viewed ethnic minority group (e.g. Schaeffer 2013). In the Netherlands, likewise, other ethnic minority groups – such as Moroccan or Antillean minorities – are often perceived more negatively than Turkish minorities (Huijnk and Andriessen 2016).

Alternatively, it is also possible that levels of prejudice and negative stereotypes do not differ that much between the two countries, but that cross-national differences in discrimination rates could be accounted by variation in the opportunity structures for ethnic discrimination in hiring (c.f. Petersen and Saporta 2004). For instance, Midtbøen (2015) argues that more formalised recruitment procedures minimise biases of first impressions in hiring. Perhaps the extensive application procedures in Germany can be considered as an indicator of more formalised hiring procedures in German-speaking countries. Therefore, more bureaucratisation in German companies might be related with more formalised hiring procedures, potentially leading to lower discrimination rates.

To separate these different explanations, future research should focus more on how employers collect and evaluate information about job applicants (Bills, Di Stasio, and Gërxhani 2017; Bartoš et al. 2016). For example, future research could examine employers' hiring practices and interethnic attitudes from a cross-national perspective and relate these to estimates of ethnic discrimination found in field experiments. In addition, one could develop organisational interventions in which the degree of formalisation of hiring procedures or the amount of information available (e.g. copies of school reports and diplomas) is varied to examine their causal effects on discriminatory behaviour in hiring decisions. Finally, we acknowledge several limitations regarding the external validity of the findings. It is important to note that we focussed on the relative hiring outcomes of young job applicants (age 23–25) with little work experience (four years), who applied for a limited number of occupations in the middle segment of the labour market – this excludes jobs in the very lowest (cleaners, waiters, warehouse worker) or the very highest segments of the labour market (lawyer, managers, doctors) – in the initial phase of the hiring process. Therefore, it would be worthwhile to examine if and how these, and other boundary conditions might have affected our main conclusions.

To close, we believe that our findings are relevant for policy makers, especially in the Netherlands. We show that the level of discrimination against Turkish minorities varies



across destination countries and is higher in the Netherlands than in Germany. Moreover, we find that the amount of diagnostic personal information in resumes plays a more limited role than has been suggested recently (Kaas and Manger 2012; Zschirnt and Ruedin 2016). Altogether, these insights suggest that policy makers should focus more on the demand side of the hiring process (e.g. employer behaviour and labour market institutions) in developing interventions aimed at combating ethnic discrimination in the labour market than on the supply side (e.g. characteristics of application documents).

## Notes

1. We find no significant two-way interaction effect between Turkish origin and gender (see Table A.5, model 1), nor a significant three-way interaction effect between Turkish origin, country and gender (see Table A.5, model 2). In addition, the results are substantially similar when excluding observations from East Germany (see Table A.6) or using a narrower definition of a call-back (0 = no invitation; 1 = invitation) (see Table A.7).
2. Within a null hypothesis significance testing framework, the effect is only marginally significant and therefore too unreliably estimated to reject the null hypothesis. Nevertheless, the direction and strength of the coefficient of the interaction effect in the Netherlands hints at a weaker penalty for applicants of Turkish origin having resumes with a picture. Several interpretations are possible: (1) a picture encourages employers to evaluate applicants more as individuals rather than as members of a social group, (2) a picture overrules the signal of ethnic origin (i.e. employers mainly see a Western person and ‘forget’ that someone is of Turkish origin), and (3) the parameter estimate can be a statistical artifact. Unfortunately, this study cannot delve further into this issue due to the low number of observations per cell and the lack of variation in pictures. Therefore, an interesting avenue for further research would be to pay more attention to the effect of a picture on ethnic discrimination. Specifically, by using a larger set of pictures and a higher number of observations per ethnic group, one can investigate whether, when, and how pictures can be influential in hiring situations (see also Rich 2018).
3. Additional analyses reveal no substantially different patterns when combining all information variables in one scale (Min. = 0 information treatments included; Max. = 3 information treatments included) (see Table A.8) or using the narrower definition of a call-back (see Table A.9 and Table A.10).
4. Notably, Ramos, Thijssen, and Coenders (2021) also find a greater ethnic penalty in call-back rates in the Netherlands.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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