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DETERMINING DISCRIMINATION

A MULTI-METHOD STUDY OF EMPLOYMENT DISCRIMINATION AMONG
DESCENDANTS OF IMMIGRANTS IN NORWAY

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SUMMARY

After decades of research documenting the various processes of marginalisation and exclusion immigrants experience in their European countries of residence, recent efforts have been made to explore the extent to which these disadvantages are transferred across generations. Illuminating the barriers facing descendants of immigrants when trying to access labour market opportunities is a task of growing importance, and the ‘second generation’ – children of immigrants either born in their parents’ destination country or immigrating before adolescence – makes up a particularly relevant case for discrimination research.

First, this group of individuals usually speaks the majority language fluently, and they have acquired domestic educational merits and work experience. As such, important obstacles normally assumed to explain many of the disadvantages facing immigrants do not apply for the second generation, making discrimination in hiring easier to detect. Second, although there are differences between groups, children of immigrants have on average achieved impressive results in the educational systems across Europe. If they are not offered the opportunity to translate their educational investments into relevant work, this has consequences both at the individual level and for the society as a whole. For individuals, barriers to employment may lead to social and economic marginalisation. At the societal level, widespread discrimination is economically inefficient and potentially a source of social unrest. Hence, the relevance of studying patterns of discrimination among descendants of immigrants is beyond doubt.

Although it is important to assess the extent to which children of immigrants experience discrimination in employment, the research on second-generation incorporation – like the field of discrimination research itself – suffers from methodological problems in measuring the extent and causes of disadvantage. In traditional statistical approaches, discrimination can hardly be distinguished from social network effects; in employer surveys, the relationship between accounts and practices remain uncertain; in laboratory experiments, findings are not directly transferable to empirical realities; and in ethnographic field work among potential victims of discrimination, the representativeness of the exclusionary processes reported is notoriously unclear. Furthermore, theoretical models used in economics and quantitatively-oriented sociology have a tendency to favour single-factor explanations of discrimination at the individual level, not sufficiently addressing how organisational contexts may shape patterns of exclusion above and beyond individual motives and cognitive biases. This dissertation addresses some of these problems in the discrimination literature by

complementing a field experiment on discrimination in the Norwegian labour market with in-depth employer interviews.

In the first part of the study, a large-scale field experiment, in which hundreds of fictitious, paired résumés and cover letters were sent in response to real job openings, was used to measure the extent to which children of Pakistani immigrants are discriminated at the entrance to the labour market in the greater Oslo area. Because the two fictitious job candidates in each pair were equally qualified in every productivity-relevant aspect, but were randomly assigned a Norwegian or a Pakistani name, the direct effect of ethnic background on job interview offers is isolated. Hence, the experimental approach allows for a direct measure of ethnic discrimination in hiring processes.

The field experiment leaves little doubt that descendants of immigrants indeed suffer from discrimination in access to employment in Norway: For the study in total, the probability of receiving a job interview offer is reduced by 25 per cent for the minority applicant compared to the equally qualified majority applicant. However, there are important differences within these overall results. For example, the discrimination rates are larger in the private sector than in the public sector, and there are significant differences across the occupations included in the study. These variations indicate the occurrence of different processes of exclusion at different locations in the labour market, pointing to the need for context-sensitive interpretations of the results from field experiments.

In the second part of the study, in-depth interviews with a subsample of the employers participating in the experiment explore how, when, and why the ethnic background of job applicants comes to matter in decision-making processes. Supplementing the field experiment with employer interviews rests on a theoretical assumption that the field experiment literature has been too concerned with single-factor explanations at the individual level, in which discrimination *either* is caused by consciously acting employers *or* is due to cognitive bias. Conducting interviews with employers that received the fictitious résumés in the first stage of the study allows for a qualitative exploration of the hiring processes, acknowledging that although the experiment suggests a causal relationship between ethnic background and employment opportunities, there are several ways in which a discriminatory outcome may be produced.

Indeed, the interviews suggest the need for multi-level explanations. At the individual level, many employers use fixed images of the ‘immigrant’ when assessing the quality of applicants with foreign names, regardless of whether the applicants are of the first or second generation. As economic models of statistical discrimination assume that employers use

accurate depictions of the average productivity level among different groups when considering job applicants – and there indeed are large differences in group productivity between the generations – the tendency to equate a foreign name with stereotypes attached to the immigrant experience supports social-psychological research on stereotypes and biases in recruitment. However, the interviews also point to the relevance of explanations at the organisational level. The qualitative ‘tracing’ of recruitment processes reveals what seems to be an interaction between the context of employment and the outcome of hiring decisions, indicating that means of bureaucratisation (e.g. formalised recruitment procedures limiting the room for employers’ discretion) may serve as a lever against discrimination in hiring. These results are in line with insights from organisational-level theories of workplace inequality, and they illustrate the relevance of combining field experiments with qualitative methods to better grasp the factors shaping labour market opportunities in modern societies.

The dissertation consists of two main parts. The first part is an introductory chapter, presenting the main objectives of the research, as well as reflecting on the theoretical, methodological, and ethical underpinnings of the study. The second part consists of four scholarly articles. The first article reviews important methodological debates within the field experiment literature and presents the particular research design of this study. The next three articles discuss the main empirical findings and their theoretical implications. The articles are as follows:

Midtbøen, Arnfinn H. and Jon Rogstad (2012), ‘Discrimination: Methodological controversies and sociological perspectives on future research’. *Nordic Journal of Migration Research*, 2(3): 203–212

Midtbøen, Arnfinn H., ‘Discrimination of the second generation: Evidence from a field experiment in Norway’. Under review

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INTRODUCTION

To what extent do descendants of immigrants experience discrimination in access to labour market opportunities? How, when, and why does the perceived ethnic background of job applicants become a matter of importance in employers' decision-making? Decades of research in sociology, economics, and social psychology have dealt with questions of ethnic discrimination, and great empirical, theoretical, and methodological progress has been achieved. Yet major uncertainties remain. Statistical analyses of large-scale data sets, surveys with employers, and laboratory experiments exploring the relevance of negative attitudes and cognitive bias cannot directly measure the extent to which discrimination occurs in real-life recruitment processes. Furthermore, ethnographic research on perceived discrimination in the labour market cannot determine the effects of these processes on employment opportunities.

The limitations of traditional approaches to discrimination research have substantial, theoretical and political consequences. Substantially, indirect measures of discrimination run the risk for both over- and underestimating the problem, allowing for polarised debates about a topic of unquestionable importance for a growing number of individuals in Western countries. Theoretically, models without 'grounding' in empirical realities are unable to explain how micro processes of exclusion lead to macro structures of inequality. In sum, these limitations have implications for social policy: Clarifying the extent to which discrimination occurs defines (at least to a certain degree) its relevance as a political issue, and theoretically grasping the processes by which ethnicity comes to matter has major implications for the accuracy of political means. As Barbara Reskin (2012: 18) recently pointed out, '[c]orrectly specified models are the *sine qua non* for effective policy intervention'. Hence, assessments of the extent to which descendants of immigrants experience discrimination in the labour market, along with an exploration of the mechanisms leading to discriminatory hiring practices, are particularly relevant contributions to this field of research.

To address some of the limitations characterising traditional approaches to employment discrimination, this dissertation studies discrimination processes in the Norwegian labour market by combining a large-scale field experiment with in-depth employer interviews. In the field experiment, paired, fictitious résumés and application letters – equal in merit but with names signalling different ethnic backgrounds – were sent in response to 900 real job openings in the greater Oslo area. As the experimental design isolates the 'ethnic' variable by eliminating every productivity-relevant difference between the two fictitious

candidates, a systematic differential treatment of the minority applicant is interpreted as evidence of employment discrimination.

An exploration of whether the effect of ethnic minority background varies with gender, sector, and occupation was conducted by sending two pairs of fictitious résumés and cover letters – one female pair and one male pair – to job openings in twelve occupational categories in both the private and the public sectors. The sample included both low-skilled jobs and jobs requiring three to four years of college education. Pakistani names were chosen to signal ethnic minority background in the study because Pakistani immigrants and their descendants make up a large and well-known minority group in Norway. Moreover, as children of Pakistani immigrants constitute the largest single group among the second generation and are currently finishing their education and entering the labour market, exploring the extent to which this group faces barriers in access to employment is particularly relevant when assessing the situation for Norway's second generation.

Although field experiments are useful in measuring the causal effect of a foreign name on employment prospects, this method does not in itself provide much information about the processes by which the ethnic background of job applicants become decisive in recruitment. To explore the mechanisms causing discrimination in hiring, a sub-set of the employers inviting one or both of the fictitious candidates for a job interview received a letter encouraging them to participate in a follow-up qualitative inquiry about hiring practices. Forty-two in-depth interviews were conducted with employers from both the public and the private sectors and from a wide range of occupations. Although recruiting informants on the basis of a field experiment could bias the results in several ways, this approach also has certain advantages: By using the overall results of the field experiment as a backdrop against conversations on risk in hiring, experiences with and beliefs about minority workers, along with screening strategies and (formal and informal) requirements for final hiring, the qualitative material provides a novel glimpse into the factors shaping employers' decision-making.

The results from this research project are disseminated in four scholarly articles appearing at the end of this volume. The aim of the introductory chapter is to situate the study in its socio-political context as well as in relevant theoretical and methodological debates within the international literature on discrimination in labour markets. Section 2 presents important characteristics of the Norwegian context, which are crucial for understanding the historical, political, and institutional circumstances surrounding this research. Section 3 discusses the concept of discrimination. Ranging from the straightforward, judicial definitions

of direct and indirect discrimination to a broader set of conceptualisations used by social scientists and legal scholars, I document the variety of phenomena included in the notion of discrimination and discuss how these are tentatively addressed by legal prohibitions and proactive means in Norway. Finally, I clarify what a field experiment of discrimination in fact measures and discuss which aspects of the discrimination complex are captured by the present study.

Section 4 presents the dissertation's theoretical framework. Discussing a range of theoretical perspectives on employment discrimination, I argue that theories at the individual and organisational levels are most relevant in explaining how, when, and why the ethnic background of job applicants becomes decisive in decision-making processes in the labour market. In section 5, I situate the study in the rapidly growing body of research based on field experiments and multi-methods and demonstrate that combining a field experiment with employer interviews is a particularly useful approach when aiming at identifying the mechanisms of discrimination in employment. Because field experiments presuppose that employers unwittingly are subjected to research and thus are not given the opportunity to provide an informed consent, section 6 discusses the challenges this method raises for research ethics and describes the ethical considerations made prior to the study's execution.

In sections 7 and 8, I briefly summarise the four articles and conclude by a discussion of the main findings and their implications. I highlight important topics for future studies on employment discrimination of descendants of immigrants and argue that field experiments, in conjunction with other methods, may provide powerful contributions to this important line of research. Finally, I consider the on-going debate about the role of discrimination in explaining ethnic inequalities and reflect on the bearing that this study has for the further development of social policy and anti-discrimination legislation in Norway.

THE NORWEGIAN CONTEXT

Each of the empirical articles constituting this dissertation includes a short paragraph on the Norwegian context. However, as the article format does not allow for much detailed information on important contextual factors, this section elaborates on the size and composition of the immigrant population in Norway, the political context, statistics on unemployment, and former research on discrimination and ethnic disadvantage. I conclude by arguing why an experimental approach to employment discrimination of descendants of immigrants is an important contribution to this field of research in Norway and beyond.

Immigrants and their descendants in Norway

Immigrants from non-OECD countries arrived rather late to Norway compared to most other Western European countries (Brochmann & Kjeldstadli 2008: 13–14). In 1970, immigrants and their children constituted about 1.5 per cent of the overall Norwegian population. Among them, almost 50 per cent originated from the other Nordic countries, while only 6 per cent originated from Asian, African, and Latin-American countries (Statistics Norway 2010).

As figure 1 demonstrates, the picture has changed rapidly since then. Through the arrival of unskilled labour migrants in the early 1970s, particularly from Pakistan, but also from countries like Morocco and India, and, later on, through substantial family and humanitarian migration, the immigrant population has steadily grown. After the EU enlargements in 2004 and 2007, Norway has, moreover, experienced a significant increase in labour migration from Eastern Europe, particularly from Poland and the Baltic countries (Friberg 2013).¹

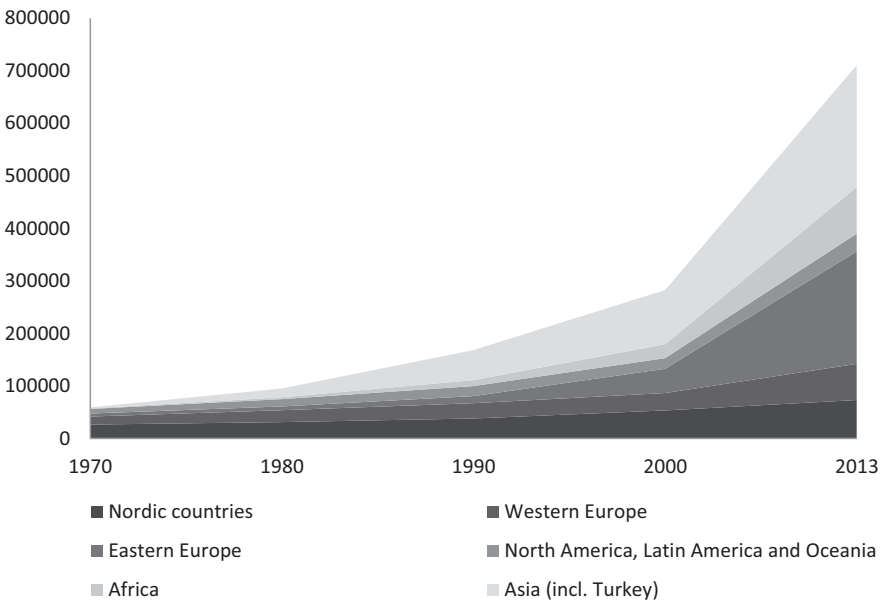
As of 1 January 2013, about 14 per cent of the Norwegian population had either immigrated themselves (593,300) or were born in Norway to immigrant parents (117,100), and the immigrant population comprised individuals from 220 countries. There were immigrants residing in all the Norwegian municipalities. Oslo had the largest population of immigrants and their descendants, both in relative and absolute figures. Of Oslo's 624,000

¹ Norway is not a member of the EU, but as member of the European Economic Area (EEA), Norway is part of the internal market for the free movement of labour, services, goods, and capital. All EU citizens are thus entitled to apply for work in Norway, as in other EU and EEA countries.

inhabitants, 189,400 were immigrants or Norwegians born to immigrant parents, making up 30.4 per cent of the capital’s entire population.²

Of the different immigrant groups living in Norway at the beginning of 2013, about 50 per cent had a European background, about 30 per cent had a background from Asia, and about 10 per cent were born in an African country. The largest immigrant groups originate from Poland, Sweden, and Lithuania, underscoring the increase in EU migration to Norway in recent years. Among immigrants from outside Europe, the largest groups are from Iraq, Somalia, Pakistan, and Iran, with the two former being the most rapidly growing non-EEA groups of immigrants in Norway (Statistics Norway 2013: 18).

Figure 1 *Immigrants and descendants of immigrants in Norway, by regional background. 1970–2013*



Source: Statistics Norway

Among the second generation, defined by Statistics Norway as ‘Norwegian-born by immigrant parents’, more than 50 per cent had an Asian background, and by far the largest single group consisted of individuals with parents born in Pakistan, who constituted about one third of the second generation in 2010 (Statistics Norway 2012: 12). Descendants of Pakistani immigrants are also older than most other groups of the second generation: In 2011, 36 per

² These numbers were collected from Statistics Norway’s website <http://ssb.no/en/befolkning/statistikker/innvbef> on 3 May 2013.

cent were more than 19 years old, versus 20 per cent for Vietnamese and Turkish descendants, 7 per cent for Iranian descendants, and only 1 per cent for Iraqi and Somali descendants. This illustrates that the second generation as a group is still young, but also that assessments of their incorporation in Norway are primarily a question of how descendants of Pakistani immigrants fare in education and the labour market (Statistics Norway 2013: 19).³

Immigration, integration, and the welfare state

The particular composition of the immigrant population in Norway may be explained by a combination of external and internal factors. The economic growth in the late 1960s made Norway an attractive destination country for labour migrants, resulting in the arrival of immigrants from non-OECD countries. Although not particularly affected by the international oil crisis in 1973, Norway introduced a temporary ‘immigration stop’ in 1975 in tandem with several other Western European countries at the time – making it a permanent measure from 1981 (Brochmann & Kjeldstadli 2008: 202).

As figure 1 illustrates, the ‘immigration stop’ did not block immigrants from coming to Norway. In fact, what was introduced in 1975 was the key principle in Norwegian immigration policy ever since: strong restrictions on unskilled labour migration, but access to the country for particularly skilled labour migrants (regulated by the demand in the oil sector), for family reunifications and new family establishments, and for refugees and asylum seekers. Until the EU enlargements in the 2000s reopened the borders for unskilled labour migrants within the EEA area, the major increase in immigration to Norway after 1975 was indeed due to family reunifications and access on humanitarian grounds (Brochmann & Kjeldstadli 2008: ch. 8).

While the ‘immigration stop’ signalled that the Norwegian government wanted to limit the numbers of newcomers *to* the country, the rather strict immigration regulation was

³ The term ‘second-generation immigrant’ is somewhat problematic because it ‘sticks’ the immigrant category to individuals who might be born and raised in their country of residence. Moreover, it is often unclear which groups are actually included in the definition. For example, Heath and Cheung (2007) reserve the term exclusively to individuals who have not themselves migrated, but who are born in their country of residence to immigrant parents. This definition is equivalent to the term ‘Norwegian-born with immigrant parents’, as used by Statistics Norway. A broader definition, used, for example, by Portes and Rumbaut (2005), Thomson and Crul (2007), and Alba and Waters (2011), encompasses all individuals who have grown up in immigrant homes, thus including children of immigrants who either were born in their parents’ destination country or arrived before adolescence – what has also been called the ‘1.5 generation’. Although it might be useful to make a distinction between the second and the 1.5 generation, this study explores the employment opportunities for young individuals with Pakistani names who have high school credentials, college education, and work experience from Norway, and does not distinguish explicitly between the two groups. Consequently, I use the broader definition in this dissertation, and in the articles as well as in the introductory chapter the terms ‘second generation’, ‘children of immigrants’, and ‘descendants of immigrants’ are used interchangeably.

countered by a liberal integration policy intending to incorporate into productive work the groups already *within* the borders. This approach to the immigration complex may be explained to a large extent by welfare state concerns (Brochmann & Hagelund 2012: 13–14). On the one hand, welfare states of the Nordic, ‘social democratic’ type (Esping-Andersen 1990), characterised by universal access to generous social rights for everyone with a legal residence permit, aim at controlling the inflow of migrants to prevent pressure on welfare budgets. On the other hand, existing resident immigrants must be swiftly incorporated into employment, as large groups outside the labour market represent a challenge to the sustainability of the welfare state. The result of this logic has been the dual face of Norway’s approach to immigration: restrictive border control combined with relatively inclusive integration efforts and active labour market policy – with the ambition of maintaining high levels of trust, solidarity, and social welfare in the new age of migration.

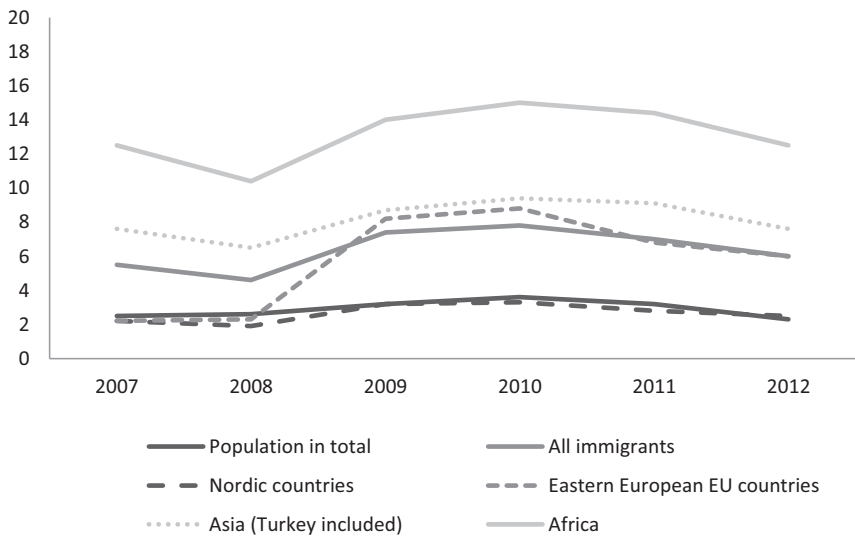
Ethnic inequality in the labour market

Although a generous welfare state relies on high rates of labour market participation, neither integration efforts nor active labour market policies have prevented persistent patterns of ethnic inequality in the Norwegian labour market. Substantial differences in employment rates between the native-born and the immigrant population as a whole have been relatively stable since the beginning of the 1990s, and particularly women with a background from non-OECD countries have had low employment rates compared to native women (OECD 2012b: 141–142).

The persistence of ethnic inequality may be illustrated by comparing unemployment rates for different immigrant groups over time. Figure 2 depicts the unemployment rates in Norway between 2007 and 2012, for the population in total, for immigrants as a whole, and for selected immigrant groups. Several points are worth noting. First, the overall unemployment rate in Norway throughout this period has never exceeded 3.6 per cent. Compared to the EU countries, which have experienced an economic crisis since 2008 and have an average unemployment rate up to 10 per cent (OECD 2012a), this unemployment rate indeed is remarkably low. Second, the figure demonstrates large differences in unemployment rates between the population in total and the immigrant population, with the latter being 3 to 4 percentage points higher throughout the period depicted. Third, there are substantial variations between different immigrant groups. Immigrants from the Nordic countries have unemployment rates on par with or even lower than the population as a whole. Conversely,

immigrants from Asian countries have had unemployment rates between 6 and 9 per cent in this period, while the rates for immigrants from African countries vary between 10 and 15 per cent. Immigrants from Eastern European EU countries had very low unemployment rates until the financial crisis started in 2008, but were then hit harder than any other group. Since 2010, all immigrant groups have experienced increased employment, but the unemployment rates are still higher than in 2008. In sum, the relatively high unemployment rates among immigrants in Norway may indicate that they face restricted access to the labour market. In international comparison, however, unemployment rates are not particularly high for *any* group, clearly suggesting that the Norwegian labour market by no means is closed for immigrants.⁴

Figure 2 *Unemployment rates for the population in total and selected immigrant groups. 2007–2012*



Source: Statistics Norway

Of course, access to employment is merely one part of the dynamics shaping ethnic inequality. After employment is secured, immigrants in Norway are incorporated into a labour

⁴ The field experiment which constitutes an important part of this dissertation was conducted between November 2009 and November 2010, that is, during the last phases of the financial crisis. Although Norway was not as influenced by the crisis or its aftermath as most other countries, and the unemployment rates were decreasing for all groups from 2010 onwards, the experimental data was collected during a period characterised by somewhat unclear economic prospects, potentially making discrimination more widespread than would be the case if the experiment was conducted during less uncertain times.

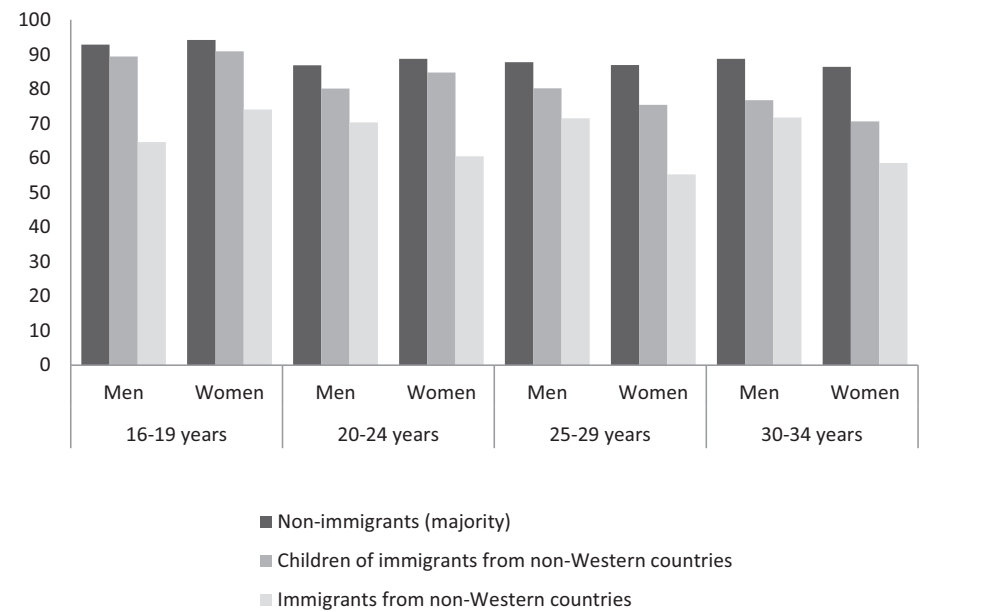
market with large differences in terms of ethnic and gender composition. The Norwegian labour market is characterised by high employment levels for both men and women, but also by high levels of gender segregation across occupations (EGGE 2009; Jensberg, Mandal, & Solheim 2012; Reisel & Brekke 2013). In the large public sector, currently employing about 35 per cent of the working population, 70 per cent are women, and in some occupations – like pre-school teaching and nursing – the female share is about 90 per cent. Conversely, male-dominated occupations, like driving or working in a warehouse, are primarily found in the private sector (NOU 2012: 15: 148–150).

Men and women of immigrant backgrounds by and large seem to follow the same pattern of occupational gender segregation characterising the labour market, with a few important exceptions: Men originating from non-OECD countries are particularly disadvantaged in attaining leading positions, and they are clearly overrepresented in the cleaning industry as well as in other low-income positions. Women from non-OECD countries, too, are overrepresented in cleaning, but seem to be closer to the overall female population in the other occupations in which they are represented (NOU 2012: 15: 153–154). There are also important sector differences in terms of immigrant representation: Immigrants are slightly overrepresented in the private sector and somewhat underrepresented in the public sector, mostly due to the high levels of formal education required for positions in the public sector (Statistics Norway 2009a). As such, both gender and ethnicity represent important dividing lines in the Norwegian labour market.

Following the debate about the ‘modes of incorporation’ that characterise children of immigrants in the US, an important question arising from these features of the Norwegian context is whether a substantial portion of children of immigrants will experience downward assimilation compared to their parents (Portes & Rumbaut, 2001; Portes & Zhou, 1993) or rather will be structurally included into and contribute to changing ‘mainstream’ society (Alba & Nee 2003; Kasinitz, Mollenkopf, Waters, & Holdaway 2008). Because Norway’s second generation is still young, there is so far no clear pattern of labour market outcomes. Still, the situation seems to be quite optimistic: On average, the second generation is close to the majority population in terms of education and employment, and some groups even outperform their majority peers. Moreover, the large gender differences in labour market participation that have typified certain immigrant groups, not least the Pakistani minority, do not seem to be reproduced across generations. In the period of 1998 to 2008, the gender gap in employment for Pakistani immigrants was 40 per cent. For their descendants of 25 to 39 years of age, the gender gap decreased from 20 percentage points in 1998 to 7 percentage points in

2008, clearly suggesting that descendants of Pakistani immigrants do not seem to copy the ‘gendered’ pattern of employment characterising their parents’ generation (Statistics Norway 2013: 53).

Figure 3 *Share of individuals active in education or employment, grouped by age, gender, and immigrant background. 2010*



Source: Statistics Norway (2012)⁵

To illustrate the situation for the second generation in Norway more broadly, figure 3 shows the share of individuals who were active in education or employment in 2010, grouped by age, gender, and immigrant background. Overall, the figure demonstrates that Norwegian-born children of immigrants are closer to the majority than to immigrants, particularly in the younger age groups. Among those above 30 years of age, there is an increasing gap between children of immigrants and natives, while for immigrants the gap vis-à-vis the majority is larger irrespective of age. Importantly, age at the time of immigration is crucial for the activity level: Among children immigrating before they entered the school system, the activity level is approximately the same as for Norwegian-born children of immigrants (Statistics

⁵ The categories ‘immigrants’ and ‘children of immigrants’ in this figure consist of individuals from non-EU Eastern European countries, Asia (incl. Turkey), Africa, Latin America, and Oceania (except Australia and New Zealand).

Norway 2012: 27). It is also worth noting that the groups of immigrants and children of immigrants in figure 3 exclusively originate from so-called ‘non-Western countries’. Including descendants of immigrants from ‘Western’ countries in the EU and North America would result in overall *higher* activity levels among this group than for the majority population in the same age groups.

The positive situation for children of immigrants in Norway is primarily due to their impressive achievements in the Norwegian educational system. Because they are still young, less is clear about how they fare in employment, but recent research suggests that the second generation experiences disadvantages in the transition between education and the labour market when compared to the majority population at the same age. Helland and Støren (2006) document that ethnic minority applicants of non-Western origin have to outperform their majority peers in order to have the same chance of obtaining apprenticeships, and Støren (2011) shows that ethnic minority youth do not have the same probability of being employed as the ethnic majority youth with the same competence and grades level. Furthermore, Hermansen (2013) finds that children of non-European immigrants experience weaker labour market attachments relative to the native majority, even when controlling for social background, although they seem to have equal access to advantageous occupational positions once employment is secured (see also Evensen 2009). These findings indicate that the second generation suffers from ‘ethnic penalties’ in the Norwegian labour market – in line with previous research in other European contexts (e.g. Crul, Schneider, & Lelie 2012; Heath & Cheung 2007).

Explaining ethnic inequalities

Structural features of the Norwegian labour market and the distribution of human-capital characteristics between different groups must be taken into account when explaining ethnic inequalities in employment. For individuals immigrating as adults, the Norwegian labour market may be difficult to enter because of the relatively small number of low-skilled entry-level occupations, but also because extensive employment protection and restrictions on temporary employment make the risk of hiring high (Nergaard 2010). Moreover, many immigrants – particularly during the first years after arrival – lack Norwegian-language skills, and educational attainment and work experience from abroad may be difficult to convert and make relevant to the Norwegian labour market. In addition, a large fraction of the immigrants

in Norway are refugees, and this group has, unsurprisingly, lower participation rates than other immigrant groups (Statistics Norway 2010).

Although institutional features of the Norwegian labour market combined with human-capital differences are important explanations of the ethnic inequalities observed, statistical analyses show time and again that even when controlling for human-capital factors like education and work experience, immigrants in Norway face particular challenges for labour market inclusion (e.g. Birkelund & Mastekaasa 2009; Brekke 2007; Brekke & Mastekaasa 2008; Røed & Schøne 2006; Wiborg 2006). Often, this is interpreted as an indication that discrimination by employers must be taken into account when assessing the causes of ethnic inequality.

The relevance of discrimination in explaining ethnic inequality in the labour market is supported by a wide range of other studies from the Norwegian context: Ethnographic research has documented experiences of racism and discrimination among different ethnic minority groups (e.g. Aarset 2006; Andersson 1999; Andersson, Jacobsen, Rogstad, & Vestel 2012; Fangen & Paasche 2012; Jacobsen 2002; Kvittingen 2011; Orupabo 2008; Prieur 2004), as well as employers' reluctance to hire immigrants and ambivalence towards workplace diversity (e.g. Rogstad 2001; Rogstad & Solbrække 2012). Social psychological studies have shown how stereotypes and cognitive bias in employment may have adverse effects for ethnic minorities (Sandal 2009). And recent surveys of self-reported discrimination suggest that immigrants experience discrimination in the labour market (e.g. IMDi 2008; Statistics Norway 2009b; see also Rogstad 2004). In sum, these research efforts clearly indicate that immigrants experience discrimination in access to opportunities in Norway, although it is notoriously difficult to assess the actual extent of the problem based on these studies (see also reviews in Danielsen 2005; Djuve 2013; Seeberg 2011).

Importantly, many of the human capital-related barriers facing immigrants are not relevant for the second generation. Because they will usually speak the majority language fluently and have acquired educational merits from their parents' destination country, obstacles normally assumed to account for many of the disadvantages facing immigrants do not apply for this group (Alba & Waters 2011; Heath, Rethon, & Kilpi 2008; OECD 2010). However, assessing the direct role of discrimination in explaining patterns of disadvantage is also difficult when studying descendants of immigrants. A major problem in conventional statistical analyses is that omitted variables may hide important factors accounting for the residual gaps between the groups under observation (Blank, Dabady, & Citro 2004; Nilsson & Wrench 2009; Pager & Shepherd 2008). For example, it is well known from the classical

labour market literature that social networks have a significant effect on employment opportunities (Granovetter 1974), and more recent contributions have suggested that such network effects are distributed unevenly across groups, indicating that social networks may be an important explanation for labour market inequality (Petersen, Saporta, & Seidel 2000). Even when assessing the situation for the second generation, one cannot equalise the existence of ethnic penalties with discrimination. Omitted variables and social network effects may still bias the results, leaving unclear the role of discrimination in determining labour market opportunities.

Discrimination of the second generation?

A major aim of this dissertation is to measure the extent to which children of immigrants face discrimination when applying for work in the Norwegian labour market. For this purpose, a field experiment in which paired, fictitious résumés and cover letters were sent in response to real-world job openings in the greater Oslo area was conducted. The fictitious job candidates were equal in productivity-relevant aspects like educational attainment, work experience, and computer skills, but differed in that one of the résumés in each pair was randomly assigned a Pakistani name while the other was assigned a typically Norwegian name. Because the fictitious job candidates were young (25 years old), the résumés and cover letters were written in fluent Norwegian, and all schooling and work experience were from Norway, the minority applicants represented credible descendants of Pakistani immigrants applying for work. And because the two applicants in each pair were equally qualified, differential treatment of the minority applicant cannot be explained by different human-capital characteristics or unequal access to social networks. A systematic favouring of the majority candidate is thus interpreted as evidence of discrimination.

This is the first field experiment of employment discrimination conducted in a Norwegian context.⁶ Focusing on the group of Pakistani descendants, the findings cannot easily be translated to other groups, not least because several field experiments in other countries have suggested the existence of an ethnic hierarchy in which some minority groups are treated far less favourably than others (e.g. Booth, Leigh, & Varganova 2012; Fibbi,

⁶ The empirical findings of this study have previously been published as a research report in Norwegian (Midtbøen & Rogstad, 2012b). A follow-up study, led by Professor Gunn Elisabeth Birkelund at the University of Oslo, has recently been completed. Here, the labour market of Oslo is contrasted with the labour markets in Bergen and Trondheim to explore whether the extent of discrimination varies by region. A field experiment measuring discrimination in the Norwegian housing market has also previously been conducted (Andersson, Jakobsson, & Kotsadam 2012).

Lerch, & Wanner 2006). This implies the need to exercise caution in generalising the results to the second generation as a whole. However, the findings shed light on the employment opportunities of a large section of children of immigrants in Norway who are currently finishing their education and entering the labour market and contribute as such by determining the role of discrimination in shaping their access to employment.

To examine whether discrimination rates vary by gender, sector, and occupation, both a female pair and a male pair of fictitious résumés and cover letters were used in the experiment, and twelve occupational categories were covered in both the private and the public sectors. Considering the structure of occupational gender segregation in the Norwegian labour market, the female pair of fictitious job candidates applied to occupations dominated by women (e.g. within health and social work) while the pair of male candidates applied to occupations already dominated by men (e.g. transport and warehousing). This way, situations in which minority applicants of the under-represented gender were preferred or rejected based on gender rather than ethnic background, were avoided. To be able to compare the effects of gender more directly, gender-balanced occupations in financial services, teaching, communications, and public administration were also included in the sample. Both the female and the male pairs of fictitious applications were sent to openings in these occupations (although not to the same job vacancies), enabling an opportunity to explore possible gendered effects of ethnic discrimination. The implementation details and the results from the field experiment are presented at length in the second article of this dissertation.

I return to the strengths and limitations of field experiments in the methodology section. Here, I also argue that supplementing the experiment with qualitative employer interviews opens up for interpreting the findings in ways not possible in single-method studies. In the next two sections, I clarify and discuss the concept of discrimination and present the theoretical framework employed in this dissertation.

CONCEPTUALISING DISCRIMINATION

The concept of discrimination is controversial, partly due to problems of measurement, but also because it is used to describe a multitude of different phenomena. In this section, I begin by defining direct and indirect discrimination in accordance with the Norwegian Anti-Discrimination Act. Furthermore, I discuss the broader concepts of systemic and cumulative discrimination and show how requirements of proactive means in the Norwegian labour market are developed in an effort to prevent some of these forms of discrimination from taking place. In conclusion, I relate the way discrimination is measured in field experiments to the discussion and demonstrate how discrimination is conceptualised in this study.

Direct and indirect discrimination

The Norwegian Anti-Discrimination Act, which came into force on 1 January 2006, prohibits direct and indirect discrimination on the basis of ethnicity, national origin, descent, skin colour, language, religion, or belief in all areas of society except for family life and personal relationships.⁷ Direct discrimination takes place when individuals or groups are treated *unequally* because of their ethnic background.⁸ Indirect discrimination, by contrast, refers to situations in which individuals or groups are treated *equally* according to a set of seemingly neutral rules or procedures, but when put into practice these rules favour members of one ethnic group over members of another.

Importantly, the Norwegian Anti-Discrimination Act defines as direct discrimination both actions that have the *purpose* of unequal treatment and actions that have differential treatment as an *effect*. Although a causal link between the ethnic background of individuals and the outcome of an action must be established to define acts as discriminatory, defining actions that lead to differential treatment as discriminatory implies that discrimination may occur regardless of the intention of the perpetrator. As such, although an act of discrimination may be motivated by racism, ethnic prejudices, or unconsciously working stereotypes, the Act does not in itself presume any underlying cause. The ban against indirect discrimination

⁷ When passed in 2005, the Anti-Discrimination Act supplemented the Gender Equality Act from 1978 that prohibited differential treatment on the basis of sex. Later on, an act prohibiting discrimination on the grounds of disability was implemented in 2008, and according to a recently published white paper on integration policy (Meld. St. 6, 2012–2013: 115), the Norwegian government is currently considering an act prohibiting discrimination on the grounds of sexual orientation and sexual identity. Additionally, there are discrimination regulations in the general Employment Act (Ch. 13), which also prohibit discrimination in employment on the basis of political views, membership in trade unions, sexual orientation, disability, and age.

⁸ For heuristic purposes, I use the term 'ethnicity' to cover all grounds in the Anti-Discrimination Act.

strengthens this perspective further: By acknowledging that disadvantages may be produced or reinforced even by neutral rules and procedures, attention is drawn to the fact that ethnic inequalities may be created independently of the intentions of individuals.

Systemic discrimination and proactive measures

Although the concepts of direct and indirect discrimination refer to a wide range of actions and procedures that may lead to ethnic inequality, social scientists and legal scholars are often concerned with broader conceptualisations of discrimination. Since the seminal work of Gordon Allport (1954), for example, social psychologists have argued that the formation of ‘in-group loyalty’ often leads to ‘out-group rejection’ and ultimately to discrimination (see Fiske 1998 for a review). Applying these theories to the workplace context, Craig (2007) discusses how processes of exclusion occur as members of privileged groups favour co-members of the same group (often called ethnic homophily or homosocial reproduction), while ‘out-groups’ systematically receive fewer opportunities in terms of training and development, promotions and work assignments, etc. Similarly, Sturm (2001) points to the subtle ways in which organisational cultures may shape patterns of interaction that over time exclude non-dominant groups. In an extensive study of all employment and housing discrimination suit files in the state of Ohio from 1988 through 2003, Roscigno and colleagues (2007: 10) argue that discrimination involves much more than direct exclusion; ‘it also entails differential treatment once employed or once housed, where the outcome is status hierarchy maintenance’. Focusing on ‘in-group favouritism’ and not simply instances of differential treatment at the point of initial hiring implies that the structures of *advantage* within organisations also must be taken into account when considering the dynamics of contemporary discrimination.

Compared to incidences of differential treatment, these forms of ‘systemic’ (Craig 2007) or ‘structural’ (Sturm 2001) discrimination are harder to prohibit by legislation, which normally protects individuals from differential treatment by providing the right to complain to a legal body when discrimination is perceived to have occurred.⁹ Due to the limits of prohibitions, these complaint-based models of anti-discrimination legislation have been

⁹ In Norway, the anti-discrimination enforcement body is called the Equality and Anti-Discrimination Ombud (*Likestillings- og diskrimineringsombudet*). Victims of discrimination may pass their complaints directly to the Ombud. In accordance with recent legal developments in Europe, in which multidimensionality and intersectionality have been key concepts (Krizsan, Skjeie, & Squires 2012), the Ombud represents a fully integrated anti-discrimination enforcement body that covers all discrimination grounds protected in the Norwegian legislation. Furthermore, the Ombud is responsible for monitoring compliance with the UN conventions CEDAW and CERD (Borchorst, Freidenvall, Kontola, Reisel, & Teigen 2012: 71).

supplemented by proactive obligations to promote equality in Norway and in countries such as the United States and Canada, as well as in the EU (Craig 2007). In Norway today, all employers are obliged to take proactive steps to prevent gender discrimination and promote gender equality, for instance in terms of recruitment, income, and promotion. All public and private firms with more than 50 employees are, moreover, obliged to actively promote equality on the grounds of ethnicity and disability. The obligations are meant to increase the awareness of equality of opportunity in all aspects of employment implying, as Craig (2007: 175) puts it, a shift in focus ‘from the compensation of individuals for unlawful discrimination to the transformation of organizational policy, practice and culture at the workplace’.¹⁰

Whether these requirements represent effective tools in practice is another question. A recent survey among Norwegian employers (Tronstad 2010) shows that half of the respondents reported that the proactive obligations did not have any effect on their efforts to promote workplace equality, while about 10 per cent were completely unaware of the mandatory requirements. This may be explained in part by the lack of clarity as to what the proactive obligations actually entail in practice, as has recently been pointed out by two government-appointed expert committees in Norway (NOU 2009: 14; NOU 2012: 15).

Another explanation probably relates to the fact that proactive measures are intended to change workplace culture and not simply the behaviour of single, discriminatory individuals. As pointed out by Robert Merton (1971), social problems that are direct products of deviant behaviour are easy to fight because they stand in conflict to the existing organisation of society. Social problems that are *by-products* of social organisation, on the other hand, tend to remain latent due to the ‘normative force of the actual’ (Merton 1971: 816). Reducing systemic discrimination requires a critical evaluation of organisational and administrative structures and implies that the problem might be the normal policies of the workplace itself. This represents a major challenge for anti-discrimination legislation because it presupposes a psychological shift acknowledging that discrimination may be a part of everyday practices and existing workplace cultures.

¹⁰ The Anti-Discrimination Act also allows preferential treatment of ethnic minorities through positive action, for example to achieve ethnic equality at the workplace. However, this practice shall cease when the purpose is achieved (c.f. Section 8 in the Anti-Discrimination Act).

Cumulative discrimination

Another aspect of discrimination which is even harder to minimise by legislative efforts is what Blank et al. (2004: ch. 11) have characterised as *cumulative discrimination*. According to the authors, there are three main ways in which cumulative discrimination can take place: First, discrimination may cumulate across processes within a domain of social life (e.g. the labour market). For example, discrimination in hiring or work assignments may affect promotion prospects and wage growth. Second, discrimination in one social context may have spillover effects on other domains. Discrimination in access to housing may, for instance, result in residential segregation, potentially affecting the quality of schools and in the longer run affecting educational and labour market outcomes. Third, disadvantages may be transferred from one generation to the next. The reduced employment opportunities or discrimination in income experienced by individuals may have direct effects on the well-being of their children. Thus, children of disadvantaged parents may have reduced opportunities without being the subject of direct discrimination themselves (Blank et al. 2004: 223–224).

Related to the concept of cumulative disadvantage is what Reskin (2012), in a recent review of race-based inequality in the US, has called *über discrimination*. According to Reskin, sociologists have been too concerned with patterns of discrimination in particular areas of social life (education, employment, housing, etc.), preventing otherwise high-quality analyses from addressing the ‘reciprocal causality of disparities across spheres’ (Reskin 2012: 18). The lack of a systems perspective on racial inequality in mainstream quantitative research renders invisible the potential feedback effects by which patterns of disadvantage are transferred across time and domains, and, as a result, prevents policy interventions from advancing racial justice.

The notions of cumulative disadvantage and *über discrimination* highlight the need to address problems of discrimination that are not easily captured by national legislation. Nevertheless, it is unclear how these problems should be measured and how relevant these concepts are outside the particular US context. As Blank et al. (2004: 224) point out, it is not evident how the effects of discrimination may cumulate over time, not least because traditional research designs measuring discrimination at one point of the time and in single domains are not able to grasp the ways in which race and ethnicity may affect access to opportunity even in the absence of differential treatment. Furthermore, the US does in some respects constitute an ‘outlier’ in discrimination research due to its history of slavery and, later on, the Jim Crow system of racial segregation and discrimination. Thus, the

transferability of these perspectives to the European context is somewhat unclear, although the more general question of how inequalities may be reproduced across generations obviously resonates with concerns about the disadvantages experienced by children of immigrants in European countries of today.

The definition of discrimination implicit in field experiments

The different aspects of discrimination discussed in this section illustrate a variety of ways in which discrimination may be defined and conceptualised, both as a legal construct and as a phenomenon studied by social scientists. How the definition of discrimination implicit in field experiments relates to this variety is, however, not straightforward. Because field experiments used for research purposes construct situations or ‘tests’ in which employers are considering paired résumés of identical quality at one point of time, the single act of choosing one candidate in favour of another cannot be defined as direct discrimination because it could be the result of a coincidental preference for one out of two equally qualified job applicants.¹¹ Neither can it be seen as indirect discrimination, since what is measured is differentials in job interview offers and not discrimination due to equal treatment based on neutral procedures. Rather, the role of field experiments is to explore whether minority applicants are *systematically* disadvantaged in access to employment (Pager & Western 2012: 233). A non-discriminatory labour market is not a labour market in which majority applicants are never preferred in favour of equally qualified minority peers, but a labour market where aggregated hiring practices are uncorrelated with particular ethnic backgrounds. Field experiments are useful in determining the role of discrimination in producing aggregate ethnic inequalities in labour market outcomes.

Still, one must keep in mind that field experiment research represents a ‘snap-shot approach’ to empirical realities. By sending hundreds of paired, fictitious résumés and cover letters, what is measured is the average ‘treatment effect’ of ethnic background on call-back rates at one point of time and in a specific geographical area. Thus, field experiments do not measure differential treatment in processes of wage negotiation, promotion, and firing – nor do they shed light on workplace cultures characterised by in-group favouritism or problems of cumulative disadvantage. This means that when field experiment researchers use the notion

¹¹ But see the work of Arai, Bursell, and Nekby (2011). In this field experiment, the minority applicants were more qualified than the majority applicants, implying that the single act of inviting only the majority candidate to a job interview in fact represents a direct form of discrimination.

‘ethnic discrimination’, what is usually meant is the average effect of ethnically distinct names on the probability of receiving call-backs for job interviews.¹²

Obviously, there is no straightforward relationship between the names of individuals and their ethnic background. For employers, a foreign name might evoke associations to nationality, religion, or even social class that are as strong as the associations to ethnicity.¹³ Moreover, as Barth (1969) has pointed out, although the word ‘ethnicity’ often refers to groups of people who are considered to have a shared identity and a common cultural heritage, ethnic identity is a matter of self-ascription and ascription by others in interaction. Studying only employers’ ascriptions, as is the case when conducting field experiment research, excludes important parts of the processes defining ethnic boundaries. Finally, using names to signal membership to one particular ethnic group makes general statements about ethnic discrimination imprecise because it implies that the results easily could be transferred to other groups. As previous field experiments have suggested that some ethnic groups experience more discrimination than others, the results from the present study do not necessarily speak to the discrimination experienced by other groups.

The field experiment employed in this dissertation measures the extent to which descendants of Pakistani immigrants, when compared to equally qualified majority applicants, are systematically disadvantaged in hiring processes in the greater Oslo area. As such, I comply with the concept of discrimination used in other field experiments, exploring generalised patterns of hiring practices and not detecting consistent discriminatory behaviour by single employers. However, because the field experiment is complemented by interviews with a subsample of the employers subjected to research in the experiment, qualitative data on the contexts of employment is also collected. By linking the experimental results to the employer’s reported beliefs about minority workers as well as to characteristics of the employment processes, the two data sources broaden the understanding of how and why the ethnic background of job applicants comes to matter in decision-making processes in the Norwegian labour market. Moreover, by exploring the extent to which descendants of immigrants experience discrimination in access to employment, the reproduction of ethnic inequalities across generations is also indirectly studied. As such, this dissertation addresses key dimensions of how discrimination shapes labour market opportunities in Norway.

¹² Field experiments may also measure actual job offers if a so-called in-person audit study is used instead of a correspondence study. I return to the distinction between these two techniques in the methodology section.

¹³ See article II for a thorough discussion of whether a name primarily signals ethnic or racial background, or rather if social class, religious affiliations, or national origin may be equally important categories inferred by employers when viewing the names of applicants.

THEORETICAL PERSPECTIVES

The main aims of this research are to assess the extent to which ethnic discrimination in the Norwegian labour market occurs and to provide a clearer picture of how, when, and why discriminatory hiring practices take place. Both of these objectives make relevant a wide range of theoretical perspectives. In this section, I discuss theories of discrimination at the individual, organisational, and structural levels. In the conclusion, I present the theoretical framework employed in the dissertation, arguing why certain perspectives are more relevant than others in grasping the dynamics of exclusion and inclusion in hiring.

Individual-level theories

Theorising in the field of discrimination research has primarily been concerned with explanations at the individual level. This is probably a result of the close relationship between discrimination and individual behaviour, as the phenomenon to be explained – at least in labour market studies – normally is the very act of differential treatment by members of the majority or dominant group towards members of minority or underprivileged groups.

Economists and most quantitatively oriented sociologists usually take the traditional distinction between taste-based and statistical discrimination as their point of departure when discussing why discrimination occurs. The idea of individuals having a ‘taste’ for discrimination originates from Gary Becker’s seminal book *The Economics of Discrimination* (1957), where he discusses the economic effects of racial discrimination in the US labour market. According to Becker, racial discrimination is the result of an employer’s willingness to *pay* for not being associated with ‘blacks’ – either by rejecting the most productive candidates or by offering a reduced income. In this model, discrimination is explained with reference to direct racial animus among employers because the behaviour lacks ‘objectivity’. According to Becker, objective behaviour is based on considerations of productivity alone, and discrimination is thus a result of employers acting on the basis of subjective preferences. As such, an underlying assumption in this theory is that discriminatory employers over time will be crowded out of the labour market because their behaviour constitutes a threat to productivity.

In contrast to the assumption that discrimination and productivity are mutually exclusive, economic models of statistical discrimination, originating from the work of Phelps (1972) and Arrow (1973), rest on the idea that discrimination is a way of managing the

imperfect information that characterises hiring decisions and wage-setting in the labour market. According to Phelps (1972: 659), ‘the employer who seeks to maximize expected profit will discriminate against blacks or women if he believes them to be less qualified, reliable, long-term, etc. on the average than whites and men, respectively, and if the cost of information about the individual applicants is excessive’. In the absence of full information, skin colour and sex will be used as proxies for productivity. According to this theory, risk-averse employers will hire the candidate who is ascribed membership to the group that has the highest average productivity – presumably ‘whites’ and men.

The main difference between taste-based and statistical discrimination is the notion of *rationality*. Excluding the most productive job applicant on the grounds of race or sex is economically inefficient, while hiring decisions based on estimates of group productivity are assumed to be rational (although still discriminatory) responses to the uncertainty and lack of full information characterising hiring decisions in the labour market. Both uncertainty and lack of information are inevitable parts of recruitment processes, and a characteristic of organisational behaviour as such (Stinchcombe 1990). Nevertheless, an unclear aspect of statistical discrimination models is the question of *accuracy* in employers’ beliefs about average group productivity. Both Phelps (1972) and Arrow (1973) are somewhat vague on this point, indicating – perhaps – that their models allow for employers’ beliefs about blacks and women to be inaccurate depictions of reality and still be ‘rational’ in some sense.

In efforts to clarify this point, other economists have defined statistical discrimination as a situation where employers act on the basis of ‘true stereotypes’ (Schwab 1986: 228) and have argued strongly that average differences in productivity between ‘whites’ and ‘blacks’, men and women, actually exist and that this difference is the basis of discrimination (Aigner & Cain 1977). Moreover, an entire branch of the economics literature is concerned with so-called employer learning (e.g. Altonji & Pierret 2001; Farber & Gibbons 1996). These scholars acknowledge that statistical discrimination may be based on outdated beliefs about group productivity, but argue that employers who have positive experiences with stigmatised minority groups over time will update their beliefs to be in accordance with empirical realities (Farmer & Terrell 1996).

Many sociologists have criticised economic models of statistical discrimination, questioning the idea of accuracy in beliefs about group productivity (e.g. Bielby & Baron 1986; Tomaskovic-Devey & Skaggs 1999), along with the assumption that employers update their views of racial minorities when new and positive information is provided (Pager & Karafin 2009). The idea that employers are guided by ‘true stereotypes’ stands, for example,

in striking contrast to Allport's (1954) work on the nature of prejudice, where a stereotype is defined as 'an exaggerated belief associated with a category' (Allport 1954: 191; see also Fiske 1998). Indeed, important qualitative work from the US context demonstrates that employers use race and ethnic background as proxies for productivity, but that their views of minority applicants often are based on crude stereotypes (e.g. Kirschenman & Neckerman 1991; Moss & Tilly 2001; Shih 2002; Waldinger & Lichter 2003). In this regard, England (1992) has made a useful distinction between statistical discrimination, on the one hand, and 'error discrimination', on the other, arguing that the latter refers to discriminatory practices guided by erroneous estimates of group averages, typically based on stereotypes about 'blacks' or women. Importantly, however, the notion of error discrimination shares with statistical discrimination the view that employers do not have a general distaste against particular groups, but rather act in a discriminatory way 'in an effort to hire a more productive work force' (England, 1992: 60).¹⁴

Efforts to develop theories of discrimination that do not take individuals' explicit prejudices and racist attitudes as a point of departure have been developed in the US context to reconcile the rather puzzling fact that ethnic and racial disadvantage seem to sustain even though attitudes towards minorities have changed in positive ways during the past decades (Pager 2007b: 106–107; see also Schuman & Krysan 1999). In fact, a range of theories attempts to shed light on this somewhat contradicting picture. One line of research is based on findings from the so-called Implicit Association Test (see Greenwald, McGhee, & Schwartz 1998), arguing that employers' actions are shaped by cognitive structures that negatively affect underprivileged groups in unconscious ways (e.g. Agerström & Rooth 2009; Bertrand, Chugh, & Mullainathan 2005; Quillian 2008; Reskin 2008).¹⁵ Others have developed theories of 'symbolic' (Kinder & Sears 1981), 'modern' (McConahay 1983), 'laissez-faire' (Bobo, Kluegel, & Smith 1997), or 'colour-blind' racism (Bonilla-Silva 2006) to direct the attention

¹⁴ Most sociologists would probably oppose the idea that statistical discrimination necessarily reflects true differences in average group productivity and agree that stereotypes about minority groups are important when explaining why discrimination occurs. In a study of ethnic discrimination in the Swedish labour market, for example, Rydgren (2004: 698) identifies 'statistical discrimination (based on stereotypical thinking)' as an important mechanism of exclusion. Tomaskovic-Devey (1999: 424) makes this point clear by distinguishing between 'strong' and 'weak' versions of statistical discrimination theory. The strong version is associated with economists and assumes that average group differences actually exist, while the weak version, more often used by sociologists, assumes that stereotypes about productivity are more important than actual productivity when explaining employers' discriminatory behaviour. In my opinion, it is useful to make a linguistic distinction between these two versions (e.g. like England's [1992] proposal) as it is notoriously unclear what is actually assumed when scholars refer to statistical discrimination.

¹⁵ See Petersen (2008) and Tetlock (2008) for important critiques of theories of unconscious or implicit discrimination.

from racist attitudes to the persistence of discriminatory actions, arguing that racism simply has changed expression from overt to more subtle forms (see also Loury 2002).

While differing in important aspects, these theoretical perspectives demonstrate that the prevalence of ethnic or racial inequality indeed is reconcilable with a decrease in explicit racist prejudice. Although it is of great importance to study changes in racial and ethnic attitudes over time as well as acknowledge that progress in this area indeed has taken place, these theories demonstrate that social research must keep focus on the *practices* of discrimination regardless of their underlying motivation.

Organisational-level theories

Albeit important contributions to the theoretical conception of discriminatory behaviour, many of the theories discussed above implicitly treat discrimination by employers as a phenomenon that can be explained exclusively by single factors at the micro level. Yet hiring decisions are made within organisational and institutional contexts that affect the extent to which racist attitudes, risk aversion, or unconsciously working stereotypes are translated into discriminatory actions (Reskin 2003).

Studying the organisational determinants of discrimination has a long history in sociological research. In his famous theory of the modern bureaucracy, Weber ([1922] 1978), for example, described how formalised recruitment procedures constrain managerial discretion in hiring. Merton (1957), too, has emphasised how formal procedures in bureaucracies ensure control over affective decision-making. In the essay ‘Bureaucratic structure and personality’, he notes that ‘[s]pecific procedural devices foster objectivity and restrain the “quick passage of impulse into action”’ (Merton 1957: 195). More recently, Baron and Bielby (1980: 738) argue that the role of organisations in stratification research should be strengthened vis-à-vis both individual- and structural-level explanations, because ‘firms link the “micro” and “macro” dimensions of work organizations and inequality’. Tilly’s (1998) notion of ‘durable inequality’ elaborates on this view, providing a powerful argument for the central position of organisational structure in segmenting categorical distinctions, with inequality as the end result.

Building partly on this work, a large body of recent studies has demonstrated the relevance of organisational-level perspectives on workplace inequality. Dobbin and colleagues (2006; 2011) have examined diversity initiatives in a wide range of American firms, exploring the effectiveness of different measures in creating equality of opportunity,

while Bielby (2008) points to the important role of formalisation and accountability structures in employment to reduce the scope of discrimination (see also Brief 2008; Tomaskovic-Devey & Stainback 2007). Indeed, the importance of recruitment procedures in preventing bias in hiring has received much attention. For example, Reskin (2000, 2008) argues that formalising employment processes may reduce the negative effects of cognitive bias against underprivileged groups, while Roscigno and colleagues (2007: 215) claim that employers activate potentially discriminatory criteria ‘only to the extent that organizational structures, procedures, and rules give them the flexibility to do so’. Moreover, Petersen and Saporta (2004) direct the attention to the ‘opportunity structure’ of discrimination, arguing that discrimination is most likely to occur at the point of initial hiring because this is where the chance of being ‘caught in the act’ is most limited (see also Bendick Jr & Nunes 2012: 242–243). In the European context of immigration and ethnic diversity, Wrench (2007) has made similar arguments, claiming that the ideal of equality of opportunity can only be achieved in workplace contexts that have implemented bureaucratic structures of equal treatment at all levels in the organisation.

Organisational-level theories of what causes discrimination offer important perspectives on the processes of workplace inequality. In the prevailing discrimination literature, however, discrimination is most often understood as reflections of individual motives or interpreted in terms of cognitive and psychological factors rather than as processes at the organisational and institutional levels (Bielby 2010). This is unfortunate, as organisations indeed mediate the biases of actors within organisations and the influence of broader societal processes (Pager & Shepherd 2008: 197). Bielby (2000: 124) makes this argument most clearly, stating that ‘the impact of gender and racial stereotyping on judgments about individuals can be minimized when judgments are based on timely and relevant information; when decision makers evaluate that information consistently with respect to clearly articulated criteria; and when a mechanism exists for holding decision makers accountable for the process they have used and criteria they have applied in making their judgments’. In practice, this means that insights from social psychological research on prejudice and stereotypes must be coupled with sociological research on the dynamics of organisations and institutions, providing analyses in which the organisational *contexts* of discrimination are moved to the forefront of this field of research.

Structural-level theories

Theories of discrimination aim at explaining why members of a dominant majority group tend to exclude members of minority groups. Usually, these theories take as their point of departure the actions of individuals and how these actions are shaped by intrapsychic factors like attitudes or implicit biases against minority groups, sometimes including the organisational determinants of when attitudes and biases are translated into action. However, discriminatory hiring decisions are also shaped by broader social structures (Pager & Shepherd 2008: 197).

For example, both individual and organisational behaviour are, at least to a certain extent, influenced by the legal environment in a given context. There can be little doubt that anti-discrimination legislation, developed more or less simultaneously in the US and Britain in the early 1960s and later on transported to most European countries, has been important in institutionalising principles of equal treatment for racial and ethnic minorities.¹⁶ Despite similarities across countries, the impact of these laws on mechanisms of workplace discrimination depends on their formulation, implementation, and enforcement (Reskin 2003: 11), and there are large variations across national contexts (e.g. Bleich 2011; Wrench 2007). The actual influences of legal requirements on individual actions and organisations' willingness to implement procedural structures that constrain biases in recruitment will as such vary considerably between countries.

Ethnic relations are also influenced by social structures with longer historical roots. In the US, for example, the history of slavery and institutionalised racial segregation still impact structures of disadvantage particularly affecting the African-American population (e.g. Alexander 2010; Dixon 2006; Massey & Denton 1993; Pager & Shepherd 2008). In many European countries, like Britain, France, and the Netherlands, the longstanding history of imperialism and colonialism have shaped the dynamics of migration, illustrated by the fact that a substantial number of the immigrants that arrived to these countries in the post-war era came from former colonies (see Castles & Miller 2009: ch. 5).

Many scholars argue that Europe's colonial past also has bearing on contemporary patterns of racism, indicating that histories of exploitation directly affect ethnic relations through traditions, ideologies, and cultural practices that systematically deny ethnic minority groups full membership in the majority community (e.g. Andersson 2003; Bach & Solomos 2000: part 4; Gilroy 1991, 2005; Goldberg 2006; Gullestad 2006; Kamali 2009). Others relate

¹⁶ See Dobbin (2011) for a historical account of the 'invention' of equal opportunity and the particular development of anti-discrimination legislation and affirmative action policies in the US.

racism and anti-immigrant sentiment in Europe to the economic and social consequences of the economic crisis in the 1970s and, later, to the renewed focus on security and global terrorism following September 11 2001, arguing that the combination of large-scale migration and a revival of nationalism and its symbols have created a situation that systematically works in disfavour of migrants generally, and the Muslim population in Western countries in particular (Castles & Miller 2009: 37–38; see also Moses 2006).

In any case, a major question concerns the relevance of structural-level theories in explaining individual action. Although discourses representing immigrants as inherently and culturally ‘different’ may lead to marginalisation and social exclusion at a societal level (Boréus 2006), it is unclear how and when these processes actually translate into, for example, actual hiring decisions. Perhaps the most important insight from these perspectives that can be applied to empirical discrimination research is that individuals and groups may suffer from discrimination without implying that the single perpetrator is an ‘old-fashioned’ racist – as often is assumed when discussing racism (Hagelund 2004; Jensen 1994). By taking into account that legacies of past discrimination and broader social processes of exclusion may shape structures of disadvantage without implying wilful acts of particular individuals, these perspectives offer crucial insights into the ways ethnic inequalities may be reproduced even in the absence of direct discrimination.

Theoretical framework of the dissertation

The extensive literature on ethnic and racial discrimination includes a wide range of theories explaining the formation, persistence, and reproduction of inequality, and the above-mentioned perspectives by no means represent an exhaustive list. However, the narrower branch of field experiment studies of employment discrimination has almost exclusively dealt with the first set of individual-level explanations, usually revolving around the traditional distinction between taste-based and statistical discrimination (e.g. Carlsson 2010; Gneezy, List, & Price 2012; Kaas & Manger 2012; List 2004), but at times also discussing the relevance of stereotypes and sociological notions of group positioning (e.g. Andriessen, Nievers, Dagevos, & Faulk 2012; Bursell 2012).

Although field experiments have proved important in demonstrating that discrimination in the access to employment in fact occurs, this research tradition has not been equally productive in identifying the mechanisms leading to discrimination. As a result, it has not contributed particularly to advancing the theoretical understanding of why and under what

conditions racial visibility or an ethnically distinct name translates into discriminatory behaviour.¹⁷ An important reason for this omission is the tendency among most field experiment researchers to implicitly assume that discrimination may be explained by single causes, that is, what Reskin (2003: 4) has defined as an ‘assumption of within-group homogeneity on the causal variable’. Resting on individual-level explanations of explicit motives or stereotypes, most field experiments result in support for a single explanation or simply in recommendations for more research, as the single most decisive factor explaining the empirical findings cannot be directly inferred from a given study.

By contrast, this dissertation is theoretically driven by the idea that although it is both relevant and interesting to explore the individual-level factors influencing hiring behaviour (indeed, the theoretical discussion in article III is merely concerned with theories at the micro-level), there is no straightforward, easily interpretable relationship between employers’ general beliefs about or stereotypes against ethnic minorities and the acts of discrimination documented by a field experiment. Thus, in addition to individual-level theories, I draw on theories derived from organisational sociology, demonstrating how contextual factors, like the extent to which hiring decisions are based on managerial discretion or formalised recruitment procedures, influence the probability of discriminatory outcomes in recruitment processes above and beyond individual motives and cognitive biases.¹⁸

Theories at the individual and organisational levels have proved most useful in making sense of the findings of this dissertation, implying that structural-level theories are less relevant in examining how and why particular employment processes resulted in discriminatory outcomes. This does not mean that, for example, public discourses representing ethnic minorities in negative ways are without relevance to the broader study of ethnic relations; neither does it imply that media representations of ethnic ‘others’ cannot affect employers’ attitudes or stereotypes. Processes of this kind, operating at a societal level but affecting individual perceptions of the social reality, may indeed be relevant for studies of discrimination and racism.

However, although the experimental data demonstrates that discrimination is a problem in the Norwegian labour market, it also reveals large variations between the public and the private sector and across the occupational spectrum examined, indicating that there

¹⁷ Important exceptions to this general assessment can be found in the work of Devah Pager and colleagues (e.g. Pager & Quillian, 2005; Pager, Western, & Bonikowski, 2009), which I will return to in the review of field experiment research in the next section.

¹⁸ These points are most clearly addressed in article IV of the dissertation, and I will return to their implications in the concluding section of this introduction.

are different processes of exclusion occurring at different locations in the labour market. Moreover, the employer interviews show that although immigrant stereotypes can explain why many employers are reluctant to hire individuals with foreign names (whether they are immigrants or not), they also suggest how certain employment contexts (e.g. when recruitment procedures are formalised) may prevent negative attitudes and stereotypes from being translated into discriminatory behaviour, while other contexts (e.g. hiring decisions based on discretionary first impressions) may lead to discrimination, despite the employers' best intentions. These are mechanisms operating at the level of *organisations*, which cannot be satisfactorily explained by theories at either the individual or structural level. Organisational-level theories, on the other hand, are clearly relevant because they provide insights into the ways organisational characteristics mediate between individual action and broader social processes.

In conclusion, the empirical findings of this dissertation highlight the need for exploring the conditions under which recruitment processes lead to discrimination, rather than operating with general theories assuming that structurally-based ethnic relations have direct effects on hiring decisions. Consequently, I rest my analyses most heavily on theories at the individual and organisational levels in an effort to specify the mechanisms linking the ethnic background attributed to job candidates to the particular outcome of employment processes. For this purpose, the multi-method research design has proved beneficial: By combining a direct measure of discrimination with a qualitative 'tracing' of hiring procedures and practices, the design allows for an empirical and context-sensitive approach that aims to identify mechanisms of discrimination in employment. In the next section, I elaborate on the details of this methodological approach as well as the notion of social mechanisms.

METHODOLOGICAL STRENGTHS AND LIMITATIONS

Field experiments have proved powerful in documenting the role of discrimination in shaping access to opportunity in a wide range of social domains. In this section, I present the field experiment methodology and briefly review the experimental research on employment discrimination. I then proceed to some examples in which field experiments have been complemented with other methods, demonstrating that combining field experiments with qualitative approaches represents a favourable strategy when aiming at identifying mechanisms of discrimination. Last, I discuss important epistemological challenges of conducting multi-method social research and reflect upon the bearing of these challenges for the present study.

The field experiment methodology

The strength of experimental approaches to studies of discrimination is the ability to isolate causal effects. In a randomised, controlled experiment, typically conducted in a laboratory setting, subjects are randomly assigned to clearly defined ‘treatment’ and ‘control’ conditions in order to control for every other factor potentially influencing the outcome of interest. However, a main concern with laboratory experiments is external validity: Because the research is conducted in artificial settings, it is difficult to assess whether results obtained in the laboratory may be generalised to the real world (Morton & Williams 2008: 344; Shadish, Cook, & Campbell 2002: ch. 3; see also Cartwright 2005). *Field experiments*, by contrast, combine the strengths of experimental methods with field-based research, relaxing the control over environmental influences to meet the problems of external validity (Pager 2007b: 109). In field experiments, matching and randomising assignments allow researchers to retain the ability to draw causal inferences, while staging the research in real-world settings like hiring processes ensures that conclusions are relevant to actual social contexts (ibid.).¹⁹

Field experiments of employment discrimination may be grouped into two main categories or techniques: audit studies and correspondence studies. In audit studies, pairs of individuals who differ in racial visibility but are carefully matched in relevant productivity characteristics and trained to act similarly, apply for real-world jobs by showing up in person

¹⁹ Conducting experiments in real-world contexts does, however, create challenges for the *internal* validity of these studies. Indeed, a long-lasting debate within this research tradition has concerned the accuracy of causal inference provided by field experiments (see Heckman 1998; Heckman & Siegelman 1993 for important critical perspectives). Because this debate is reviewed in article I (Midtbøen & Rogstad 2012a), I do not go further in examining problems of internal validity at this point.

(e.g. Pager 2003; Pager, Western, & Bonikowski 2009). In correspondence studies, as exemplified by this dissertation, matched pairs of résumés and cover letters differing in the names of the applicants (signalling different race or ethnicity) are sent in response to job openings (e.g., Bertrand & Mullainathan 2004; Oreopoulos 2011). In both types of studies, the effect of race or ethnicity on employment opportunities is directly measured. Because all factors other than race or ethnicity are isolated and the résumés are randomly assigned to the test persons, well-conducted field experiments provide convincing estimates of the incidence of discrimination in specific labour markets (Quillian 2006: 303).

The world of field experiment research

The first field experiments were conducted in Britain and the US in the 1960s and 1970s (e.g. Daniel 1968; Jowell & Prescott-Clarke 1970; McIntosh & Smith 1974; Wienk, Reid, Simonson, & Eggers 1979). The timing was not coincidental: In both countries, the new civil rights legislation prohibiting discrimination in access to housing and employment abolished the most blatant examples of racial discrimination, for instance in job advertisements (Arrow 1998). However, whether these overt forms of discrimination were indicative of a decrease in discrimination altogether or rather if prohibitions simply led to a change in expression was a question left unanswered. The field experiment method was introduced in an attempt to answer this question and has been a steady part of the methodological tool-kit for social scientists studying discrimination in Britain and the US ever since.

During the 1970s and 1980s, only a few other countries utilised field experiments in assessing the extent of discrimination: The Netherlands and France (Bovenkerk, Kilbourne, Raveau, & Smith 1979), Canada (Henry & Ginzberg 1985), and Australia (Riach & Rich 1987, 1991). In the beginning of the 1990s, the International Labour Organisation (ILO) initiated a large-scale comparative project involving field experiment research in several European countries (Bovenkerk 1992; Zegers de Beijl 1999), extending the approach to countries like Germany (Goldberg, Mourinho, & Kulke 1996), Belgium (Arriijn, Feld, & Nayer 1998), Spain (de Prada, Actis, & Pereda 1996), Denmark (Hjarnø & Jensen 1997), Italy (Allasino, Reyneri, Venturini, & Zincone 2004), and Sweden (Attström 2007). Today, field experiment studies of discrimination are flourishing. Most notably, the approach has gained interest in the European context,²⁰ but recent field experiments have also been conducted in

²⁰ Recent studies have been conducted in the Netherlands (Andriessen et al. 2012), Belgium (Baert, Cockx, Gheyle, Vandamme, & Omey 2012), Ireland (McGinnity & Lunn 2011), Sweden (Bursell 2012; Carlsson 2009), Greece (Drydakis & Vlassis 2010), Switzerland (Fibbi et al. 2006), France (Duguet, Leandri, L'Horty, & Petit

countries like India (Banarjee, Bertrand, Datta, & Mullainathan 2009; Thorat & Newman 2009) and Chile (Bravo, Sanhueza, & Urzúa 2010), indicating that experimental approaches to discrimination research are considered relevant across the globe.²¹

In sum, field experiments of employment discrimination have been conducted in dozens of countries for more than 40 years, demonstrating the prevalence of racial and ethnic discrimination in a wide range of institutional contexts (see reviews in Charles & Guryan 2011; Fix & Struyk 1993; Levitt & List 2009; Pager 2007b; Riach & Rich 2002). Results have varied across countries, but not a single study has concluded that discrimination is *not* a relevant factor in shaping access to employment for a variety of racial and ethnic minority groups. In most studies, the probability of receiving a job offer or being invited to a job interview for minority applicants is reduced by between 20 and 50 per cent compared to equally qualified majority peers. In fact, no studies have concluded that the negative effect of minority status on employment opportunities is less than 15 per cent, although large and important differences in discrimination rates across the occupations included in a given field experiment are often reported (e.g. Carlsson & Rooth 2007) – and sometimes also between different ethnic groups (e.g. Booth et al. 2012). Despite these variations, the vast amount of field experiment research clearly demonstrates that discrimination continues to represent a significant barrier to the inclusion of minority groups in the labour market.

Mechanisms of discrimination: Mixing field experiments with other methods

No doubt, the beauty of a field experiment is the ability to assess the direct effect that race or an ethnically distinct name has on employment prospects, and the opportunity to generate strong causal inferences is probably an important explanation for the increased popularity of experimental methods in sociology (Pager 2007b), economics (List & Rasul 2010), and political science (Green & John 2010) in recent years. Still, a basic premise of the present study is that this methodological approach also has certain limitations. Although field

2010), Germany (Kaas & Manger 2012), Spain (Albert, Escot, & Fernández-Corenjo 2011), and Britain (Wood, Hales, Purdon, Sejersen, & Hayllar 2009).

²¹ To be sure, field experiments have not been limited to racial and ethnic discrimination in employment. Researchers have studied the extent of discrimination in, for example, access to housing (e.g. Andersson et al. 2012; Drydakis 2011; Yinger 1986) and mortgage lending (Ladd 1998) and in bargaining for cars (Ayres & Siegelman 1995; List 2004). Furthermore, field experiments have been conducted to explore discriminatory practices on the basis of gender (e.g. Booth & Leigh 2010; Neumark, Bank, & Van Nort 1996; Riach & Rich 1987, 2006b), religion (Widner & Chicoine 2011), caste (Siddique 2011; Thorat & Attewell 2007), sexual orientation (Ahmed, Andersson, & Hammarstedt 2013; Drydakis 2012; Tilcsik 2011; Weichselbaumer 2003), social class (Jackson 2009), disability (Graham, Jordan, & Lamb 1990), age (e.g. Ahmed, Andersson, & Hammarstedt 2012; Lahey 2008; Riach & Rich 2006a, 2007), obesity (Rooth 2009), and criminal records (Pager 2003; Pager, Western, & Bonikowski 2009).

experiments convincingly have documented the fact that discrimination occurs, this research tradition has been less productive in explaining the *processes* by which race and ethnicity become factors of importance in employers' decision-making (Pager, Western, & Bonikowski 2009: 786; see also Roscigno 2007: 13).

This argument can be made more clearly by examining what type of causal study a field experiment in fact represents. The main goal of randomised, controlled experiments is to document the direct effect of some cause or intervention, in this case the effect of having a Pakistani name on the probability of receiving a job interview offer versus the probability of receiving a call-back for applicants with Norwegian names, everything else being equal. However, randomised experiments have their unique strength in providing causal *descriptions*, not causal explanations (Shadish et al. 2002: 9), and cannot, by themselves, satisfactorily explain *how* or *why* a particular outcome was produced (Holland 2003: 6; see also Cartwright & Hardie: part 4). This means that a field experiment can demonstrate the causal effect of a foreign name on employment prospects, but it cannot shed much light on the mechanisms leading to discriminatory practices. Nevertheless, the findings of field experiments have been claimed to *explain* racial differentials in income (Darity & Mason 1998: 76) as well as to document the *causes* of discrimination (Yinger 1998: 36). As such, this research tradition has at times featured what Elster (2009) in another context has called 'excessive ambitions'; that is, field experiments have been used as a basis for more far-reaching conclusions than can be inferred from their actual findings.²²

Still, there is little doubt that research that identifies the mechanisms explaining how and why discrimination affects labour market opportunities for disadvantaged groups would be most welcome. Indeed, the 'plea' for mechanisms (Elster 1998) has been quite loud among social scientists in recent years, not least through the influential programme of 'analytical sociology' (e.g. Hedström 2005; Hedström & Bearman 2009; Hedström & Swedberg 1998b). Analytical sociology aims at developing mechanism-based explanations of social phenomena, defined by Hedström and Swedberg (1998a: 10) as research that 'do[es] not rest with describing the strength and the form of the relationship between the entities of interest but addresses a further and deeper problem: how (i.e., through what process) was the relationship brought about?' As such, the ambition of analytical sociology is to move beyond descriptions

²² See article I (Midtbøen & Rogstad 2012a) for an elaboration of this point.

of statistical associations between variables by *explaining* social phenomena through specification of the social mechanisms generating the outcome of interest.²³

The ‘plea’ for mechanisms has also come from within the narrower field of discrimination research. In her presidential address to the American Sociological Association in 2002, Barbara Reskin (2003) argued that sociologists should pay more attention to the mechanisms leading to discrimination in employment. According to Reskin, theories of taste-based and statistical discrimination, currently dominating the quantitative discrimination literature, cannot be tested empirically because they presuppose that the researcher has access to the motives of single actors. Mechanism-based theories of discrimination, by contrast, ask *how* discrimination takes place by exploring ‘the specific processes that link individual’s ascriptive characteristics to work place outcomes’ (Reskin 2003: 2).

In an effort to come closer to the mechanisms of employment discrimination, a small subgroup within the field experiment literature complements field experiments with qualitative approaches. Pioneering in this regard are the series of field experiments conducted by Devah Pager in the 2000s, exploring the effects of race and criminal records on employment opportunities in the US. For example, in an audit study conducted in New York (Pager, Western, & Bonikowski 2009; Pager, Western, & Sugie 2009), the experimental data was supplemented with field notes written by the test persons after each encounter with employers. These field notes demonstrated not only that the ‘white’ and African-American applicants were treated highly differently, but that even when both received a job offer (i.e. situations otherwise registered as equal treatment in field experiments conducted in isolation), the latter were channelled into doing less favourable tasks compared to the equally qualified white applicants.²⁴

Another example of how qualitative approaches in combination with field experiments can broaden our understanding of the nature of discrimination stems from the interview data collected in this dissertation. The interviews suggested that the awareness of descendants of

²³ Although the focus on social mechanisms has been rapidly increasing in the social sciences in recent years, a uniform definition of social mechanisms does not exist. Gerring (2007) identifies nine different meanings of the concept in contemporary social science, ranging from law-like explanations to particular techniques for analyses, pointing to the need for some kind of definitional consensus among researchers. His proposal is a minimum definition in which a social mechanism is equal to ‘the pathway or process by which an effect is produced or a purpose is accomplished’ (Gerring 2007: 178). In this definition, a mechanism represents the link between a cause and an outcome, thus implying that it is not enough to simply establish the existence of a causal relationship, but to explain both how and why a particular outcome was produced.

²⁴ Except for Pager’s work (see also Pager 2003; Pager & Quillian 2005), only a few other field experiments have been complemented by other methods. Carlsson and Rooth (2007) and Oreopoulos (2011) have combined correspondence studies and telephone surveys with employers, while Rooth and Agerström (2009) have combined a field experiment with an Implicit Association Test.

immigrants as prospective job applicants is scarcely distributed among Norwegian employers. Instead, a foreign name tends to be equated with the immigrant experience, resulting in rejections of minority applicants with reference to, for example, an assumed lack of language proficiency, even though the applicants were young, the cover letters were written in fluent Norwegian, and the résumés clearly stated that all schooling and higher education was attained in Norwegian educational institutions. This finding enabled a theoretical exploration of the role of stereotypes in employers' decision-making (see article III), which data from a single field experiment would not have led to.

These examples show the promise of integrating field experiments with qualitative methods because the combination of methods allows for a closer examination of the mechanisms of discrimination. Indeed, studies of mechanisms would normally require some kind of ethnographic account, as neither experiments nor quantitative analyses of large datasets provide much information of how an effect was brought about (Paluck 2010). Nevertheless, the analytical sociology approach to social research does not seem to include any role for qualitative inquiries. Sørensen (1998: 238), for example, claims that qualitative approaches cannot provide data that are sufficiently reliable or generalisable to satisfy requirements for scientific theories, and in Hedström's (2005) introduction to analytical sociology the idea that qualitative approaches may offer insights that other methods cannot is rejected. Still, the empirical example of how the framework of analytical sociology may be used in practical research (Hedström 2005: ch. 6) – an analysis of the social dynamics of unemployment among young individuals in Stockholm in the 1990s – partly rests on *qualitative interviews* with youth conducted before the quantitative analysis is even started (Hedström 2005: 122), and these accounts shape the interpretation of the quantitative material. This is an illustrative example of the benefits of combining qualitative research with statistical analyses and agent-based modelling. Yet despite the fact that the insights gained from the interviews actually guide Hedström throughout his argument, the advantages of qualitative methods when searching for social mechanisms are left unmentioned.

A multi-method research design

As would be clear by now, this dissertation takes as its point of departure that a complex phenomenon like discrimination in employment is best studied by combining data collected through the use of different methods. However, there is a variety of ways in which different data types can be mixed, and studies of this kind can be categorised by three main

dimensions: the motivations to combine different types of data, the extent of sequencing in the data collection, and the level of nesting of the different data sources (Small 2011: 63).

In terms of *motivations* for combining data sources, multi-method studies may be conducted either by a wish to confirm or verify the findings derived from one type of data by the findings from another type, or by the complementarity of different data, indicating that one type compensates for the limitations of another. Second, studies combining different data may be catalogued by the extent of *sequencing* of the data collection. In concurrent designs, several types of data are collected simultaneously, while in sequential designs one type of data precedes another for methodological reasons. Finally, multi-data studies may be grouped by the level of *nesting* of the different data sources. Nested research designs use data that are collected from the same actors, organisations, or entities (see Lieberman 2005) – typically by conducting a large-N survey and then drawing a sub-sample of these respondents for subsequent in-depth interviews – while non-nested designs use data from different units of analysis. The three dimensions are summarised in table 1.

Table 1 *Dimensions of mixed-data collection in multi-method social science*²⁵

Motivation		The extent of sequencing		The level of nesting	
Confirmation	Complementarity	Concurrent	Sequenced	Same units	Different units

In this dissertation, a field experiment is complemented by in-depth interviews with employers. As such, I combine two different data types, experimental data and interview data, collected by using two different methods, a correspondence study and qualitative interviews. Using the three dimensions in table 1, this particular study is, first, motivated by the *complementarity* of different methods. The field experiment has the advantage of assessing the causal effect of a Pakistani name on the probability of receiving a job interview offer. Furthermore, interviewing a subsample of the employers participating in the experiment provides an opportunity to explore the various reasons why employers act as they do and the contexts surrounding their hiring decisions. Although qualitative data always are at risk of selection effects and social desirability bias and suffer from problems of representativeness, previous studies of discrimination based on employer interviews in the US demonstrate that

²⁵ This table summarises the three main dimensions of mixed-data collection, described in a recent, comprehensive review of multi-method social science (Small 2011: 63–71).

this approach offers a possibility to gather comprehensive information on employer attitudes and beliefs (e.g. Kirschenman & Neckerman 1991; Moss & Tilly 2001, 2006; Pager & Karafin 2009). Complementing the correspondence study with a qualitative approach thus allows for assessing a broader set of causal questions than can field experiments conducted in isolation.

Second, the study has a clear-cut *sequential research design*. The data was collected in two different phases. In the first phase, the field experiment was conducted by sending hundreds of paired, fictitious résumés and application letters to real-world job openings. As soon as one or both of the fictitious applicants were contacted by an employer, the outcome of the test was carefully registered and the job offers politely refused. In the second phase, a selection of employers who had invited one or both of the applicants to a job interview received a letter informing them about the study and that a given hiring process had been subject to observation, and finally inviting them to be interviewed about recruitment in the Norwegian labour market. Because the employer interviews were intended to shed light on a selection of the hiring decisions observed through the experiment, a sequential research design was necessary.

Third, the qualitative data are *nested* in the large-N experiment in the sense that the sample of employers participating in the qualitative part of the study was drawn from the pool of employers whose hiring practices were observed in the field experiment. However, this study does not follow the schematic characteristics of a nested analysis of multi-method data as described by Lieberman (2005: 437), in which small-N analyses are used to either test or build models based on a preliminary large-N analysis. The concept of ‘nesting’ in this particular study simply means that the respondents in the interview phase of the study were selected from the population of employers constituted by participation in the field experiment.

As the articles in this dissertation in various ways discuss the research design (articles I, II, III, and IV), the process of implementing the field experiment (articles II and IV), the relationship between the experiment and the interviews (articles I, III and IV), and potential sources of bias in the qualitative material (articles III and IV), this introduction does not delve further into the methodological details of the study. Instead, I use the remainder of the section to briefly review a major debate concerning the epistemological perspectives underpinning different methodological techniques and to situate the multi-method research design of the present study within this literature.

Multi-method social research: An epistemological contradiction in terms?

Multi-method research designs have increasingly gained popularity in the social sciences in recent years (e.g., Bryman 2007; Creswell & Plano Clark 2011; Small 2011). As every single-method approach to social science has limitations regarding either its generalisability or depth, combining several methods has the potential of bringing research closer, deeper, and more widely into the anatomy of social life. However, a commonly held view among many social scientists is that multi-method research also faces particular challenges. An important point of discussion is whether combining quantitative and qualitative approaches represents an epistemological contradiction in terms because the different methods reflect different assumptions about the nature of truth, or if qualitative approaches in fact (though often not acknowledged) share with quantitative methods an underlying notion of causation (Seawright forthcoming).

The distinction between statistical analyses of large datasets, on the one hand, and qualitative analysis of a small number of cases, on the other, is the typical point of departure when debating multi-method social science. According to Ahmed and Sil (2009: 3), quantitative and qualitative methods rest on ‘incommensurable epistemological foundations that even the most heroic attempts of translation cannot overcome’. Others, like George and Bennet (2004: 6), claim instead that ‘case studies share a similar epistemological logic with statistical methods and with formal modelling that is coupled with empirical research’ and that the main point of divergence lies in the different methodological logics they represent (see Brady & Collier 2004 for a similar view).

Combining a field experiment with in-depth employer interviews entails an even greater epistemological contrast than the more conventional quantitative/qualitative divide. The experimental method originated from the developments in disciplines like chemistry and physics in the seventeenth century (Shadish et al. 2002: 2) and when social scientists use randomised, controlled experiments they also adapt (at least implicitly) the key explanatory logic of the experimental method, implying a sense of ‘methods community’ between the social and the natural sciences (Mjøset 2009: 42). Qualitative, case-based approaches in the social sciences have, on the other hand, developed historically in direct opposition to such ideas. By focusing on the symbolic dimension of meaning, inspired by the work of Weber and Schütz, the philosophical foundation of qualitative social science is based on a critique of ‘positivism’, insisting instead on the subjective character of human action and that social life cannot be reduced to law-like regularities (Mjøset 1991: 174–175). In fact, as Mjøset (2009: 47) argues, case studies can be depicted as the *opposite* of the experiment: ‘In an experiment,

the production of a predicted outcome is just a means to arrive at general statements on the process. In case studies, outcome and process are significant in and of themselves'. Thus, in terms of historical development, philosophical orientation, and the practical craft of conducting empirical social research, the combination of methods used in this dissertation may seem problematic from an epistemological point of view.

However, a more pragmatic approach may also be adopted. Although it is clearly the case that experiments and case studies have different philosophical origins and often will have divergent objectives for social research, their views of the social world are not necessarily incompatible and a combination of the two does not inevitably lead to an epistemological conflict (Hammersley 2008). Rather, as different methods provide different information on what is studied, the disadvantages of one approach may be compensated by the advantages of the other, and vice versa. Qualitative measurement within a field experiment can, for example, lead to a better understanding of the causal effect, suggest plausible causal explanations, and uncover processes of human action that are otherwise invisible (Paluck 2010: 61). This point of view does not imply that field experiments and qualitative approaches have identical epistemological perspectives or that case studies are analogue to experiments, as some scholars have suggested (e.g. Andersen 2013; Yin 1984). Instead, it highlights that *complementary* knowledge of a shared social world may be derived from data collected by different methods. The virtue of employing a field experiment in this study is its ability to assess the causal effect of a foreign name on hiring opportunities. Qualitative employer interviews, on the other hand, provide insights into the processes by which the ethnic background of job applicants in some contexts leads to discriminatory hiring practices. As such, combining experimental and qualitative approaches may lead to a broader understanding of the nature of discrimination than could be inferred by either method conducted in isolation.

THE ETHICS OF FIELD EXPERIMENTS

The final aspect of the research design that will be discussed in this introductory chapter concerns the ethics of field experiments. A fundamental principle in social research states that those subjected to research shall have the opportunity to provide a free and informed consent, assuring that research participation is voluntary and that the decision is based on sufficient information. In practice, participating in research is not always entirely voluntary and informed consent is not always particularly informed. However, it is less usual that researchers actively violate the principle of informed consent and subject to research people who have not received any information about their participation, as is the case with field experiments. May ‘deceptive’ methods still be justified within the logic of research ethics?

An unethical approach to social research?

In their nature, field experiments represent a break with the principle of informed consent (Pager 2007a: 76–78; Riach & Rich 2004). Testing for employment discrimination, the method requires that employers unwittingly are recruited for participation and that they are subjected to fictitious résumés or test persons acting as real job candidates. As mentioned in the methodology section, the approach was developed to explore the relevance of discrimination in hiring after the most blatant examples of such practices had disappeared. To examine recruitment *practices* implies that employers cannot be aware that they are under observation. Thus, both deception and absence of informed consent are intrinsic parts of field experiments.

Using field experiments in the study of discrimination represents a dilemma. On the one hand, social researchers should obey the principle of informed consent because violating this norm raises questions related to individual freedom, independence, and privacy, as well as potentially putting the scientific integrity of the research community at risk (NESH 2006). On the other hand, it is not possible to directly observe discriminatory hiring practices by using non-experimental methods, and refraining from using a method that enables the direct measurement of discrimination also has problematic aspects. As Banton (1997: 419) points out, ‘[t]o conclude that the ethical objections to practice-testing [i.e. field experiments] constitute an insuperable obstacle to the use of this research method is, in effect, to endorse the prevailing incidence of racial discrimination’. Approaching this dilemma, the problems of

field experiments – particularly the burdens on employers – must be considered in close relation to the potential benefits of conducting studies of this kind.

Discussing the consequences of field experiment research for individual employers, Bovenkerk (1992: 33–34) argues that the principle of informed consent may be deferred for three main reasons: First, the right to privacy is not decisive because the act of ‘hiring personnel is not an entirely private matter’. Employers are not entitled to exclude job candidates on the grounds of their ethnic background; hence, their hiring decisions have public interest and could be studied by social researchers.

Second, field experiments have almost no harmful effects on individual employers. This method is used to explore whether stigmatised groups on average face disadvantages in the access to occupational positions, and in this context, harming individual employers by revealing their identities or holding them liable for discrimination is simply not of interest. As previously mentioned, field experiments conducted for research purposes are in fact not even useful as tests for litigation because the single act of inviting one out of two equally qualified applicants to a job interview could be the result of a coincidence (Pager & Western 2012).

Third, although a field experiment makes employers consider résumés and cover letters that would otherwise not be among the applicants for a vacant position, the experimental situation is created within a recruitment process that has already been initiated by the employers themselves. Thus, employers are never ‘enticed to deviate from their normal course of action’ (Bovenkerk 1992: 34). Because field experiments are conducted within the context of real-life recruitment processes, the situations observed reflect conventional employment practices, making the problem of external validity less prominent and the problem of research ethics less decisive.

There are indeed many arguments for conducting research on discrimination by using field experiments. Employers remain anonymous, hiring processes are of public interest, and employers are obliged to follow principles of equal treatment in recruitment (see also Rogstad 1996). In terms of the reputation of social research in the wider public, however, the use of ‘deceptive’ methods may clearly be negative. On the other hand, whether the scientific integrity of the research community will be hurt by studies of this type will depend heavily on the way the findings are communicated to the public. Discrimination is a topic of controversy in most countries, and research on exclusionary hiring practices will inevitably be conceived of as problematic by many actors. At the same time, as Pager (2007a: 78) argues, ‘[r]igorous and realistic measurement of discrimination is fundamental to understanding and addressing persistent barriers to employment facing members of stigmatized groups’. Complementing a

field experiment with employer interviews, moreover, allows for identifying mechanisms of discrimination, potentially providing an even stronger basis for the development of preventive social policies and anti-discrimination legislation (Midtbøen & Rogstad 2008). In this perspective, field experiment research may in fact *strengthen* the integrity of social research by providing new and important knowledge of the exclusionary dynamics of labour markets and by pointing out a direction for how this problem may be addressed.

The history of approval

In Norway, all researchers conducting projects that involve information on the individual or firm level must apply to the Norwegian Social Science Data Service (NSD) for approval. In projects that are particularly challenging in terms of research ethics, researchers may also seek guidance from the National Committee for Research Ethics in the Social Sciences and the Humanities (NESH), which – in addition to drawing up guidelines for research ethics in the social sciences, law, humanities, and theology (NESH 2006) – contributes by evaluating particular projects when researchers want to safeguard their ethical considerations.

In the case of this research project, the ethical aspects were thoroughly considered. In fact, the process of considering the research ethics has a peculiar history that goes back to the early 1990s. When the International Labour Organization (ILO) launched the previously mentioned comparative project involving a series of field experiments to be conducted simultaneously in a wide range of countries,²⁶ research ethics was a decisive argument against participation in one country: Sweden. When applying to the Swedish Council for Social Research for financial support to join the ILO project in 1993, two university researchers had their applications denied on the grounds of research ethics and particularly with reference to the principle of informed consent (Banton 1997: 415). This decision also had consequences outside the Swedish context: Because the method was rejected by the Swedish Council for Social Research it was assumed that the Research Council of Norway would reach the same conclusion. This is a main reason why Norwegian researchers during the 1990s never even applied for funding of experimental studies of discrimination (Rogstad 1996).

Interestingly, this picture changed in the early 2000s. Sweden eventually joined the ILO project (Attström 2007), and since then a range of field experiments have been conducted in the Swedish context (e.g. Ahmed et al. 2012; Ahmed et al. 2013; Bursell 2012; Carlsson

²⁶ These countries were Australia, Canada, the US, Belgium, France, Italy, the Netherlands, Germany, Spain, Switzerland, and Sweden.

2009; Carlsson & Rooth 2012). The fact that Swedish research ethics authorities changed their opinion of this method also led to an application for financial support of a field experiment on ethnic discrimination in the Norwegian labour market, resulting in a publically available report presenting the empirical findings of the study (Midtbøen & Rogstad 2012b) as well as in this doctoral dissertation. Nevertheless, a precondition for financial support was that the project was considered and ultimately approved by NESH in Norway.²⁷

In September 2008, a brief outline of the research design, along with a formal request to have the ethical aspects of the project evaluated, was sent to NESH for consideration. In their first reply, dated 15 December 2008, the committee stated that the project is important but that it would require a thorough evaluation based on more information followed by a subsequent discussion. Thus, a report (Rogstad & Midtbøen 2009) discussing the ethical aspects of the project more broadly was written during the fall of 2008 and a meeting was initiated.

On 2 March 2009, the report was the subject for discussion at a meeting with NESH, and on 19 March the committee's final statement was published. In this statement, NESH argues that despite the ethical problems related to field experiments and the specific research design, the project could be carried out conditioned on three prerequisites. First, the tests should be finalised at an early stage of the hiring process (implying that a correspondence study rather than an audit study was to be carried out). Second, no personal information about the specific individuals responsible for the hiring processes was to be registered. Third, to participate in the follow-up interviews the employers themselves had to respond to a written invitation, providing informed consent in the second part of the study. By meeting these conditions, according to NESH, the potential societal value of the research findings would exceed the ethical problems related to field experiment research.

Ethics in practice

Carefully considering the ethical implications of social research prior to its execution is an important part of every research project. However, it is equally important to comply with norms of research ethics throughout the process of implementation. In this project, the conditions made by NESH were closely followed. For example, no personal information

²⁷ That is, NESH does not 'approve' or 'reject' research projects, but gives advice and assistance in making ethical considerations. In this case, however, the Ministry of Children, Equality, and Social Inclusion would not fund this research without a positive evaluation from NESH. This way, the committee's decision in fact was equivalent to an approval, although the project ultimately could have been rejected by the Norwegian Data Protection Authority (Datatilsynet).

about the individuals responsible for hiring was registered electronically. Although the names of the persons responsible for recruitment were included on the job advertisements that were printed out for the sake of systematisation, the information was kept confidential by immediately cataloguing and locking down each advertisement after printing. By keeping the anonymity of individual employers and firms secured throughout the entire process, the burdens imposed on employers by the field experiment were exclusively constituted by the fact that each of them had to evaluate two fictitious job applicants that would otherwise not have been under consideration.

A less clear-cut part of implementing this research, also of relevance for research ethics, was related to the qualitative interviews. On the one hand, conducting these interviews would give a sample of the employers subjected to research in the field experiment a rare opportunity to make sense of the particular outcome of the ‘test’ they had been exposed to. On the other hand, employers who had invited for a job interview only the majority candidate could potentially perceive the interview situation as an offense and feel obliged to defend or justify the decision made. As such, the qualitative part of the study represented a challenge methodologically, because undertaking interviews on the basis of tests of discrimination indeed is unusual. Moreover, the interviews were also a potential challenge to research ethics because the respondents could experience the interview situation as uncomfortable.

To minimise the burden of participating in the qualitative part of the study, none of the employers, no matter the outcome of the ‘test’, were confronted with the results in an inappropriate way. Instead, each employer was given the choice of knowing the results of their decision. Furthermore, they were never accused of having made the ‘wrong’ decision, but were politely asked to reflect on the outcome on the basis of a sincere interest in their reflections. Interestingly, all of the employers wanted to know the outcome of their own test. A few of them clearly found this information unpleasant (situations that were ameliorated by quickly moving on to another topic), but the vast majority had no problems in accepting the premises of the conversation or in discussing topics that are undoubtedly quite sensitive. In fact, several of the employers explicitly stated that they were sympathetic to the idea of conducting experiments of employment discrimination and were happy to be given an opportunity to provide their view on the causes of discrimination in hiring. These reactions indicate that field experiments on discrimination may not be as controversial as one might expect. On the contrary, studying the occurrence of discriminatory hiring practices could even raise the awareness of the problem of discrimination among employers, potentially increasing their efforts to secure just treatment of job applicants regardless of ethnic background.

SUMMARY OF ARTICLES

This dissertation consists of four scholarly articles. Article I, co-authored with Jon Rogstad, reviews important methodological debates in the field experiment literature and presents the multi-method research design of this particular study. The remaining three articles, of which I am the sole author, present the empirical findings and their theoretical implications. Article II discusses the broad results from the field experiment and relates the findings to experiments conducted in other contexts as well as to the on-going debate about the disadvantages facing descendants of immigrants in Europe. Article III is primarily based on the qualitative employer interviews and explores the role of ethnic stereotypes in determining discrimination in hiring. Finally, in article IV, the experimental and qualitative material is brought together in an analysis of the context of employment discrimination.

Article I: Discrimination: Methodological controversies and sociological perspectives on future research

Co-authored with Jon Rogstad (equal authorship) and published in *Nordic Journal of Migration Research*, 2012, 2(3): 203–212

The article reviews the field experiment tradition of discrimination research. It presents the origins of this methodological approach and highlights its main characteristics. Furthermore, it discusses an important critique originating from the work of James Heckman (1998; 1993), concerning the existence of unobservable variables and the subsequent danger of drawing inferences on a wrong basis. The multi-method research design of this dissertation is introduced as a relevant answer to several of the questions raised about field experiment studies of discrimination. By supplementing a correspondence test study with in-depth interviews with employers who were subjected to the fictitious job applicants in the experiment, the design offers an opportunity to measure the extent of discrimination in the labour market while at the same time exploring the mechanisms involved in discriminatory hiring practices. Thus, it is argued that this particular research design has several advantages when compared to single-method approaches to the study of employment discrimination, providing a substantial understanding of the processes leading to ethnic inequality in the labour market.

Article II: Discrimination of the second generation: Evidence from a field experiment in Norway

Under review

The article presents and discusses the findings from the field experiment. By utilising a correspondence test study in which pairs of equivalent résumés and cover letters were sent in response to 900 job openings in the greater Oslo area, it explores the extent to which children of Pakistani immigrants experience employment discrimination. The results show that applicants with Norwegian names on average are 25 per cent more likely to receive a call back for a job interview than equally qualified applicants with Pakistani names. More refined analyses demonstrate that the effect of ethnic background on employment probabilities is larger among men than women and larger in the private sector than in the public sector, and important variations among the occupations included in the study are revealed. In an effort to separate the potentially conflating effects of gender and sector, all applications to gender-segregated occupations were removed from the analyses. Interestingly, the gender differences disappear when exclusively analysing discrimination in gender-integrated occupations by sector. In gender-integrated occupations in the private sector, the gender difference in fact is reversed, indicating that women with minority background are treated less favourably than are minority men in the private sector. These results suggest that the intersection of gender, ethnicity, and sector should be scrutinised more carefully in future field experiments.

Article III: The invisible second generation? Statistical discrimination and immigrant stereotypes in employment processes in Norway

Accepted for publication in *Journal of Ethnic and Migration Studies*

The article takes the field experiment as a point of departure and uses the data from the in-depth employer interviews to explore the decision-making processes leading to the disadvantages observed. Theoretically, the notion of statistical discrimination, frequently used as a main explanation for ethnic inequality in economics and quantitative sociology, is discussed in relation to social-psychological theories of prejudice and stereotypes. The qualitative material suggests that employers use ethnically distinct names as proxies for foreign education and lack of language proficiency – that is, stereotypes regularly associated

with the immigrant experience. The implications for the employment opportunities of children of immigrants are discussed. Instead of experiencing equal access to the labour market, they encounter attitudes and stereotypes attached to their parents' generation, making their domestic educational qualifications and linguistic fluency 'invisible' in the eyes of employers.

Article IV: The context of employment discrimination: Interpreting the findings of a field experiment

Accepted for publication in *British Journal of Sociology*

The article presents the key results from the field experiment and complements these findings with data from the qualitative employer interviews. The theoretical point of departure is that although field experiments have proved important in documenting the relevance of discrimination in employment, theories developed to explain the dynamics of differential treatment cannot account for differences across organisational and institutional contexts. Mixing a field experiment with in-depth interviews is introduced as a relevant approach for addressing this shortcoming. While the experimental data support earlier findings in documenting that ethnic discrimination in the labour market indeed takes place, the qualitative material suggests that theorising in the field experiment literature has been too concerned with individual-level explanations. Discriminatory outcomes in employment processes seem to depend on contextual factors such as the number of applications received, whether requirements are specified, and the degree to which recruitment procedures are formalised. In conclusion, it is argued that different contexts of employment provide different opportunity structures for discrimination, a finding with important theoretical and methodological implications.

CONCLUDING REMARKS AND PROSPECTS FOR FUTURE RESEARCH

In this concluding section, I sum up the main findings of the dissertation by answering the two research questions guiding this work. I also highlight important remaining lacunas in our knowledge about employment discrimination of descendants of immigrants for future research to fill. At the very end, I reflect upon the relevance of this work for the further development of social policy and anti-discrimination legislation in Norway.

Do descendants of immigrants in Norway experience employment discrimination?

This dissertation takes as its point of departure that the role of discrimination in determining labour market outcomes of children of immigrants is notoriously difficult to assess. Although the second generation on average has demonstrated impressive results in education in Norway, as well as in a range of other European countries, a number of traditional quantitative studies have documented that descendants of immigrants – particularly of non-European origin – seem to experience disadvantages in access to employment (see a review of this research in Heath et al. 2008). Still, these studies cannot rule out alternative explanations for the disadvantages observed, for example that differences in access to social networks may explain ethnic disparities in employment, leaving the role of discrimination somewhat unclear.

By conducting a field experiment, this dissertation documents that discrimination indeed is a relevant factor shaping employment prospects for descendants of immigrants in Norway. On average, the applicants with Pakistani names, compared to those with Norwegian names, had a 25 per cent lower probability of receiving a job interview offer. This result complements the findings from previous quantitative studies in Norway (Evensen 2009; Hermansen 2013), clearly demonstrating that discrimination at the entrance to the labour market does account for important barriers facing the second generation.

As has been emphasised several times throughout this introduction, generalisations on the basis of findings from field experiments must be made with caution. This study sheds light on the barriers facing young individuals with Pakistani names in the particular Norwegian context and cannot easily be transferred to other groups or compared to other countries. Because individuals of Pakistani origin make up about one third of the second generation in Norway and constitute the group which is oldest and as such has the most experience with the

Norwegian labour market, it seems fair to say that the results of the field experiment have important bearing for the employment prospects of descendants of non-European immigrants. Still, a Pakistani name may, for example, signal a general Muslim background rather than a specific ethnic group. In that case, what is measured is reluctance among Norwegian employers to hire applicants assumed to be Muslims, indicating that the findings cannot be translated to the second generation as a whole.

Field experiments conducted in other European countries sometimes report large differences in discrimination rates among different ethnic groups (e.g. Booth et al. 2012; Fibbi et al. 2006). In other cases, no such difference is found – most notably in an Irish field experiment in which applicants with foreign names were 50 per cent less likely to receive job interview offers compared to applicants with Irish names, but with no significant differences between applicants with African, Asian, and German names (McGinnity & Lunn 2011). Because the present study has measured discrimination of only one minority group, I cannot assess if children of Pakistani immigrants are subjected to particularly high levels of discrimination, or rather if it is simply a foreign name – regardless of ethnic or religious affiliation – which creates the barrier to employment in Norway. Closer examination of the existence of ethnic hierarchies in employers' hiring practices is one important task for future field experiment research.

While measuring discrimination rates among just one or a few minority groups limits the ability to generalise from the field experiment, the results are also difficult to compare because they are conducted within a specific national context. Countries differ in terms of the size and composition of the immigrant populations, legal systems, policy efforts of reducing discrimination, the structuring of labour markets, and the general economic situation. Although the overall discrimination rate reported from this field experiment is relatively low in international comparison (cf. the methodology section), the experiment was conducted during a time period characterised by a quite favourable economic situation in Norway. The global financial crisis of 2007–2008 did not affect Norway as acutely as most other European countries, and although there was a rise in unemployment rates during these years, particularly for certain immigrant groups, the situation was improving when the experiment was conducted. Of course, the financial crisis may still have led to uncertainty among employers, which again may have increased the level of discrimination. Still, the general unemployment rate in Norway at the time was remarkably low (cf. Figure 2). As there are reasons to believe that the level of discrimination rises when the demand for labour is low,

this indicates that the discrimination rate reported cannot be compared directly to field experiments conducted in countries experiencing less favourable economic situations.

Another reason why direct international comparison of field experiment research is difficult relates to the major differences between studies in terms of methodological rigour and the technique of measurement, as well as differences in the occupations included in the sample, whether applications were sent in response to job openings in both the public and the private sectors, and whether the gender of applicants was included as a factor of interest. In this study, both a female and a male pair of fictitious *résumés* and cover letters were sent in response to a range of different job openings representing a variety of occupations in both the private and the public sectors. Indeed, the experimental findings suggest that there is more discrimination against men with minority backgrounds than against minority women, more discrimination in the private sector than in the public sector, and large differences across the occupational spectrum. These results clearly point to the need for caution in drawing international comparisons unless a careful examination of the specific design is conducted, because differences in design may be conflated with differences in substantive results across national contexts.

This being said, the results from the experiment in the present study are nonetheless interesting in an international perspective. For example, several field experiments in Europe have reported that minority men are more exposed to employment discrimination than are minority women (e.g. Andriessen et al. 2012; Bursell 2012). At first glance, the results of this study support these findings. However, because the fictitious *résumés* and cover letters from the male pair of applicants often were sent in response to job openings in male-dominated occupations in the private sector, while the female pair mainly applied to female-dominated occupations in the public sector, the relative effects of gender, sector, and occupation on the overall results are intertwined. Analysing only gender-integrated occupations, to which both the male and the female applicant pairs applied, clearly reduces the gender difference, and when separating the results for gender-integrated occupations by *sector*, the gender difference disappears or is even reversed: In the public sector, the effect of ethnic background on call-back rates is small and non-significant, and no gender difference exists. In gender-integrated occupations in the private sector, the negative effect of a Pakistani name on call-back rates is large and statistically significant, and women with a minority background are treated *less* favourably than are minority men. As previous field experiments reporting large gender differences have not explored the relevance of sector in their analyses, future studies should address the intersection of gender, ethnicity, and sector more carefully.

The striking sector differences are also interesting because the public sector in Norway is large compared to most European countries – about 35 per cent of the total work force is employed in public companies – and it is well known for the relatively high levels of formal education required for permanent employment (Statistics Norway 2009a). Because the fictitious job candidates used in this experiment were always given the qualifications required, the small and non-significant call-back gaps in applications to public positions indicate that the public sector may serve as an important employment arena for the second generation in the years to come. Furthermore, it serves as a reminder that the size of the public sector may prove important in determining the level of discrimination experienced by children of immigrants in different countries, again highlighting the relevance of ‘controlling’ for sector differences when comparing discrimination rates across contexts.

In sum, the field experiment demonstrates the relevance of discrimination in shaping access to employment for a large fraction of Norway’s second generation. Still, more research is needed to clarify whether discrimination rates vary between different ethnic groups, between men and women with minority backgrounds, and between the public and private sectors. It would also be relevant for European research on discrimination to catch up with recent research trends in the US, for example by exploring the ways in which race and ethnic background interact with other social markers, like criminal records (e.g. Pager 2003; Pager Western, & Bonikowski 2009) or sexual orientation (e.g. Pedulla 2012). Moreover, considering the differences in educational systems, labour market regulations, and welfare state arrangements in European countries, a question of increasing concern is the extent to which institutional contexts influence the trajectories of incorporation characterising the second generation (e.g. Crul & Mollenkopf 2012; Crul et al. 2012; Heath et al. 2008). Future studies should conduct carefully designed multi-sited field experiments that compare groups in similar labour market positions across a range of different countries in an effort to explore more directly the effect that national contexts have on discrimination rates.

How, when, and why does ethnicity come to matter in employment processes?

Although it is of unquestionable importance to document the significant role of discrimination in determining the employment opportunities of children of Pakistani immigrants in Norway, a basic premise of this study is that field experiments of discrimination do not in themselves say much about the processes by which this outcome is produced. Thus, the second main question underlying the dissertation is how, when, and why the ethnic background of job

applicants becomes decisive in employers' decision-making, linking the findings of this dissertation to on-going theoretical debates about the mechanisms of discrimination. Methodologically, this question was addressed by complementing the field experiment with in-depth interviews with a subsample of the employers who were subjected to research in the first stage of the study.

In the theory section, I argued that because the field experiment and the subsequent employer interviews shed light on the behaviour of individuals within organisational contexts, theories at the individual and the organisational levels have proved most relevant for the analyses conducted in this dissertation. At the individual level, I have been concerned with the complex processes characterising employers' decision-making. Hiring inevitably involves risk. Decisions are made under uncertainty and suffer from limited information about each applicant, and choosing the wrong candidate may have consequences for profit and the work environment. Moreover, employers will often be confronted with a large number of applicants for a listed job, and decisions are made rapidly in most hiring processes. As a consequence, social cues like gender, race, and ethnic background are used by employers to categorise and rank the applicants at hand. That categorisation process is partly unconscious and partly based on the knowledge, experiences, and general beliefs employers have about the group to which candidates are ascribed membership (Fiske 1998).

In economic models of statistical discrimination, employers are assumed to posit correct information about average group productivity, and positive experiences with individual members of stigmatised groups are expected to lead to updated beliefs about the group in question (see Aigner & Cain 1977; Arrow 1973; Phelps 1972; Schwab 1986 for the theoretical foundation of this perspective). By contrast, sociological and social-psychological models have questioned the extent to which employers possess 'true' knowledge of average productivity, suggesting instead that stereotypes and erroneous beliefs about underprivileged groups account for the prevalence of discrimination (e.g. England 1992; Pager & Karafin 2009; Quillian & Pager 2010; Tomaskovic-Devey & Skaggs 1999).

In analysing the employer interviews, I argue that theories of stereotyping processes shed light on employment discrimination of descendants of Pakistani immigrants in Norway. First, the negative experiences employers report to have had with previous employees of minority backgrounds tend to be generalised *across groups*. Although economic models of employer learning allow for experiences with individuals to shape general beliefs about group characteristics, an important question seldom addressed in theoretical discussions is the scope of that generalisation. In the material presented in article III, negative experiences with

individuals originating from single countries are used as justifications for future rejections of applicants from neighbouring countries or broader categories like ‘non-European’ or ‘non-Western’ origin, and frequently even descendants of immigrants are brought into the equation. These findings demonstrate that the scope of generalisation should be carefully scrutinised when assessing the relevance of statistical discrimination theory in explaining ethnic disadvantage in occupational outcomes.

Including children of immigrants in their general beliefs about ethnic minorities, the interviews with Norwegian employers also draw attention to a second way in which models of statistical discrimination tend to overestimate the accuracy in assessments of group productivity. As demonstrated in the section on the Norwegian context, there are large differences between immigrants and their descendants in terms of human-capital characteristics like educational level and language skills. In fact, although there are important differences between various groups, children of immigrants from developing countries are close to the majority in school performance and share enrolled in higher education, and some groups even outperform their majority peers (Statistics Norway 2012). Still, many scholars tend to favour the theory of statistical discrimination when explaining disadvantages experienced by the second generation, *as if* average productivity were highly different. Rather than positing accurate knowledge of group productivity, the qualitative findings demonstrate that Norwegian employers use foreign names as proxies for immigrant stereotypes, constituting a major barrier to employment for a generation currently entering the labour market.

Although important explanations for discrimination at the micro-level, this introduction has argued that individual-level theories of discrimination cannot fully account for the complexity revealed by the qualitative material. This relates to an important theoretical point guiding this work, which also contains a critique of the field experiment tradition: Most field experiments discuss a few individual-level theories as possible explanations of discrimination – most frequently taste-based and statistical discrimination, but at times also theories of stereotypes or group positioning – and usually conclude that the findings may be explained by one or the other. However, data from a field experiment conducted in isolation are not particularly suited to assess the mechanisms involved in discriminatory hiring practices. Still, theoretical discussions following field experiments tend to imply that they do, normally arguing that discrimination should be explained either by racist tendencies, statistical uncertainty, or stereotypes.

The interviews analysed in this dissertation indeed demonstrate that many employers display both negative attitudes and crude stereotypes of ethnic minorities, and that they use these in strategies for risk minimisation. Others express positive or 'colour-blind' attitudes towards ethnic diversity. However, the extent to which these attitudinal differences actually translate into corresponding actions seems to be mediated through the contexts surrounding the hiring decisions. In article IV, three factors are highlighted as particularly important: First, a striking feature of the employment processes resulting in a discriminatory outcome was the large number of résumés received in response to job advertisements. Although few résumés for a listed position increases the probability of any résumé resulting in a call-back, the interviews with employers suggest that the number of applicants directly shapes the degree to which employers can 'afford' to discriminate. This indicates that a small pool of relevant candidates provides less room for discrimination, more or less regardless of employers' attitudes towards minority workers.

Second, although a formal education at the college level is often assumed to reduce the scope of discrimination, the extent to which such formal requirements are absolute and predefined varies considerably by context. Employers in some occupational settings must conform to a rigid set of employment rules while others are able to replace formal requirements with less specified criteria for selection. This distinction may be illustrated by comparing nurses and teachers in the public sector, on the one hand, and IT advisors and accountant assistants in the private sector, on the other hand. All of these positions require three to four years of college education, but whether the formal criteria actually apply in practice differs. For example, applicants without a completed college degree will not be hired in permanent positions as nurses or teachers. By contrast, among IT advisors and accountant assistants a college degree is relevant, but former experiences and not least personality and perceptions of suitability are far more decisive, leaving the question of what constitutes a qualified candidate open to employers' discretion. In terms of hiring outcomes, discretionary decisions appear to increase the probability for discriminatory behaviour.

Third, recruitment procedures vary considerably among the employment processes observed. In some cases, hiring decisions are made rapidly and based on first impressions. In others, efforts at formalisation are made for standardising the applicants and neutralising the impact of bias in the hiring processes. For example, small firms in the private sector, where discrimination rates exceed those in larger private companies and in the public sector, often report that they screen the quality of the applicants as soon as they receive new résumés. On the contrary, firms in the public sector usually use electronic application forms to standardise

the résumés and reduce the subjective aspects of screening. Although formalisation in itself is not enough to secure equal treatment of ethnic minorities, the interviews suggest that formalised recruitment procedures do counteract the biases of first impressions, creating a context in which ethnic discrimination is less likely to occur.

In conclusion, it is important to highlight how micro-level dynamics of exclusion are influenced by factors at the organisational level. Discussing the importance of contextual factors in determining the probability for unequal treatment does not imply that individual motives or stereotyping processes are irrelevant when assessing the causes of discrimination, but rather points to ways in which individual actions are embedded in social relations. Formalised hiring procedures may prevent negative attitudes and stereotypes from being translated into discriminatory behaviour, while employment processes guided by discretionary decisions based on first impressions may lead to discrimination despite employers' best intentions. These examples illustrate how contextual and organisational characteristics influence the 'opportunity structure' for discrimination in ways not acknowledged in the field experiment tradition. As Fiske (1998: 375) points out, '[m]ost people, given the wrong context, are prone to stereotypes, prejudice, and discrimination. However, most people, given the *right* context, can avoid stereotypes, prejudice, and discrimination'. Further exploration of how mechanisms at the organisational level shape prospects for discrimination in hiring above and beyond individual motives and cognitive biases represents an important research agenda for the future.

Some reflections on the findings and their political implications

Studies of racial or ethnic inequalities in the labour market are usually considered highly relevant for policy-making. However, the appropriate *direction* for the development of social policy depends on how these inequalities are explained. A major debate among US scholars concerns the relevance of discrimination in explaining contemporary racial and ethnic disparities. Influential scholars have argued that the Civil Rights Act of 1964, prohibiting racial discrimination in key institutions like housing and the labour market, led to a declining significance of race (Wilson 1978) and that discrimination is a problem of an earlier era (Heckman 1998). Several researchers have argued that existing wage differentials between racial groups may be explained by different cognitive test scores measured years before and not by wage discrimination in the labour market (Carneiro, Heckman, & Masterov 2005; Neal & Johnson 1996). Based on similar findings, Heckman (1998: 101) argues that 'most of the

disparity in earnings between blacks and whites in the labor market of the 1990s is due to differences in skills they bring to the market, and not to discrimination within the labor market'. The logical policy answer to this analysis would be to strengthen the efforts to decrease premarket disparities resulting from, for example, racial neighbourhood segregation and differences in the quality of schools.

Although this discussion originates from the particular context of US race relations, it resonates with important debates about integration policies and anti-discrimination legislation well known in European countries, including Norway. Regularly, ethnic inequalities in the labour market are explained by disparities in language proficiency, access to social networks, and level of educational attainment, which are used as the basis for increasing integration efforts with the ambition of 'levelling the playing field' among immigrants and natives. However, if ethnic inequalities also are produced through discrimination in processes of employment, wage negotiation, and workplace cultures that systematically favour the dominant group – and particularly if these disadvantages are transferred to the second generation – this points to the need for complementing integration policies by strengthening the frameworks of anti-discrimination legislation.

Field experiments have the advantage of documenting the prevalence of discrimination in employment, making it a tempting method for social scientists who aim at contributing to the reduction of ethnic inequality. Still, most discrimination research, even when based on data from field experiments, usually leaves the mechanisms involved in discriminatory practices well hidden in 'black boxes'. This is a major problem when assessing what policy implications field experiment research should have. As Elster (1998: 53) notes in a discussion of mechanism-based explanations in the social sciences, *it matters* what factors influence an outcome of interest and the relative strengths between these factors. It matters for theoretically grasping the dynamics of contemporary discrimination, and it matters for further political and legal development. Merton (1976: 197) relates this point directly to discrimination research by pointing out that '[k]nowing simply that ethnic discrimination is rife in a community does not therefore point to appropriate lines of social policy'. So what bearing do the findings of this multi-method study have for the political and legal efforts to prevent ethnic discrimination in the Norwegian labour market?

Findings from field experiments have often been used as arguments for strengthening minorities' legal protection against discrimination. In some contexts, even more controversial policy measures have also been debated. Most notably, many European countries have recently discussed anonymous applications as a means of arriving at equal treatment in

employment, and some of them – e.g. Germany, France, and Sweden – have implemented these measures. Anonymous applications may appear as an attractive policy instrument for combating discrimination in employment. However, recent evaluations draw a mixed picture in terms of its success, documenting, for example, that although ethnic minorities are more frequently invited to job interviews when applications are anonymous, they do not seem to experience an increase in actual job offers (Behaghel, Crepon, & Le Barbanchon 2012; Krause, Rinne, & Zimmermann 2012; Åslund & Skans 2012).

A more powerful contribution to combating discrimination would be a strengthening of the proactive measures already in place. As previously mentioned, all public firms and private firms with more than 50 employees in Norway are obliged to actively promote equality on the grounds of ethnic background, but many employers are not aware of these obligations, and those who are may not know what they entail in practice (Tronstad 2010). A specification of the content of the proactive duties in the Anti-Discrimination Act, combined with more efforts to spread information about them and to sanction employers who do not comply, is already recommended by several expert committees evaluating different aspects of Norway's legal apparatus for combating discrimination and promoting gender and ethnic equality (NOU 2009: 14; NOU 2011: 18). The findings of this dissertation, demonstrating how rules and procedures at the organisational level shape the prospects for discriminatory hiring practices, generally support these ideas.

When assessing the proactive legal framework, it is also important to keep in mind the large differences in discrimination rates among the public and private sectors, and the fact that discrimination seems to be most prevalent in small, private firms where hiring procedures are least formalised; that is, among employers who are not legally obliged to take any proactive steps in terms of promoting ethnic equality today. Including *all* employers in the legal requirements for proactivity, as is the case for gender, seems to be a small but necessary step towards equality in recruitment, although it will probably lead to controversies. Intervening in the functioning of the labour market, by prohibitions or demands of proactive measures, will always create debates because it restricts the sovereignty of employers in making the decisions they find to be in the company's best interest. Still, the findings of this study clearly suggest that employers' decisions in sum constitute major barriers to employment, and these barriers should be addressed more directly by legal and political efforts.

The extent to which these reflections will have any impact on future development remains to be seen. In terms of the public debate in Norway, the most important contribution of this dissertation may simply be an end to the ever-lasting discussion of whether ethnic

discrimination in employment actually occurs, shifting focus to the important question of how this problem can best be addressed. Discrimination *does* constitute a significant barrier to labour market inclusion even for children of immigrants currently coming of age. This represents a major problem for a group of individuals who are disadvantaged in translating their impressive achievements in the educational system into relevant work. It is a problem for employers depriving themselves of skilled labour. And it constitutes both a moral and a financial challenge for the Norwegian welfare state, which cannot accept that a large fraction of its population is systematically disadvantaged in getting access to occupational positions.

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DISCRIMINATION

*Methodological controversies and sociological perspectives on future research***Abstract**

Field experiments have proved productive in documenting the continuing relevance of race and ethnicity in the shaping of opportunities in modern societies. However, methodological questions have been raised concerning the existence of unobservable variables and the subsequent danger of drawing inferences on a wrong basis. In this article, we address these debates and discuss a research strategy which to a large degree exceeds the challenges posed in the literature. By supplementing a correspondence test study with in-depth interviews with employers who were subjected to the fictitious job applicants in the experiment, we get access to the extent of discrimination in the labour market as well as to the mechanisms involved in discriminatory hiring practices. The design has several advantages compared to 'single-method' approaches and provides a more substantial understanding of the processes leading to ethnic inequality in the labour market.

Keywords

Ethnic discrimination • field experiment • correspondence testing • labour market • mixed methods

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1 Introduction

Ethnic discrimination remains a controversial topic in modern societies. Insofar as ethnicity constitutes an obstacle to full participation in the educational system, the labour market and other societal arenas, the normative principle of equality of opportunity widely held by most governments is being challenged. Despite the fact that ethnic inequalities for decades have been a matter of great concern, however, two questions continue to create debate among both scholars and politicians: What is the actual *extent* of discrimination in different spheres of social life? And what are the *causes* of discriminatory treatment?

The first question is primarily related to how and by which methods discrimination should be measured (Banton 1994; Bovenkerk 1992). While traditional methods such as surveys and regression analysis of large data sets have been perceived as insufficient for measuring discrimination directly, there has been a growing interest for experimental methods among social scientists studying discrimination in different market situations (Pager & Shepherd 2008; Riach & Rich 2002; Blank, Dabady & Citro 2004). By creating field

experiments that test access to opportunity for ethnic minorities compared to equally qualified persons from the majority population in, for instance, the labour market, it is possible to measure the causal effect of ethnicity and draw statistically significant conclusions about the extent of discrimination (Quillian 2006; Pager 2007).

Although field experiments have proven productive in documenting the continuing relevance of ethnicity in the shaping of opportunities in modern societies, the evidence they offer does not shed much light on the second question, i.e., the underlying causes of discrimination. Whether discrimination is caused by racist motives, statistical uncertainty or stereotypes unconsciously working in disfavour of ethnic minorities, is widely debated in the discrimination literature (e.g., Pager & Karafin 2009; Petersen 2008; Reskin 2000; Reskin 2008). An important question is thus how to develop a research strategy which simultaneously addresses both the extent of discrimination and the mechanisms involved in discriminatory practices.

The aim of this article is to discuss the methodological possibilities and limitations of the field experiment tradition. We argue that combining a correspondence study with in-depth employer interviews represents a methodological innovation for research on

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discrimination. The use of mixed methods is obviously not new to sociological research and is in itself not entirely new in the field experiment tradition either (see Carlsson & Rooth 2007; Pager & Quillian 2005; Pager, Western & Bonikowski 2009). Drawing on empirical illustrations from a research project addressing the extent and causes of ethnic discrimination in the Norwegian labour market, however, we show that this specific research design has important advantages when the aim is to gain insight into the nature of discrimination. The field experiment makes it possible to draw statistically significant conclusions on the extent of ethnic discrimination. By interviewing a selection of the exact same employers who participated in the initial testing, we are furthermore able to explore the various reasons why employers act as they do and the contexts surrounding their hiring decisions. The crucial point is that the qualitative interviews take place in a situation where we as researchers already know the outcome of the specific tests, allowing us to link the interviews to the employers' behaviour in actual employment processes.¹

We begin by briefly discussing traditional methods for the study of discrimination, highlighting their insufficiencies in producing direct measures of the extent of discriminatory practices. We then discuss the audit method more specifically, both by clarifying its importance in documenting the continuing significance of ethnic discrimination and by accounting for important critical perspectives (e.g., Heckman 1998; Heckman & Siegelman 1993). Critique of the audit method has resulted in several refinements of the testing technique, including a more frequent use of correspondence testing in recent years (see Bertrand & Mullainathan 2004; Bursell 2007; Carlsson & Rooth 2007; Jackson 2009; Kaas & Manger 2012). Although such refinements answer some of the main objections, the most serious critique of the audit method – that unobservable variables within firms may influence the outcomes of the audit study without the researcher's awareness – is not accommodated by a simple change of test technique. Supplementing the findings of the field experiment with data from qualitative interviews largely solves this problem, because the interviews provide a broader contextual frame of interpretation and a more empirically based understanding of the mechanisms leading to discriminatory hiring decisions. Thus, this design has clear advantages over single-method approaches in that it offers a more complete picture of the complex ways in which discrimination takes place in modern societies.

2 Traditional methods for measuring discrimination

Discrimination has been a central field of study for social scientists for decades, resulting in a variety of methods and techniques for measurement. Traditional approaches include studying the *experiences* individuals may have with discriminatory treatment, which best can be investigated through the use of surveys or qualitative interviews; a focus on the role of *potential discriminators* and their attitudes

and prejudices, which usually also are addressed by surveys and interviews; and lastly, studies of *ethnic differentials* in, for instance, labour market outcomes, which are most commonly examined by statistical analysis (Pager & Shepherd 2008; Blank, Dabady & Citro 2004). Which method is the most suitable depends on the question posed: A focus on people's experiences highlights central aspects of everyday life; studies of potential discriminators may provide insights into the way individuals in power positions make their decisions; and statistical analyses are of indisputable importance in providing large-scale pictures of ethnic inequalities.

Each of these methods thus represents different ways to acquire knowledge of important aspects of the discrimination complex. Yet, they all have obvious limitations if the purpose is to establish knowledge of the actual extent of discrimination. Studies of perceived discrimination may result in both over- and underreported levels of discrimination due to the subjective character of experiences. Asking individuals in power positions what they would have done in hypothetical situations does not have to correspond with what they actually do in practice. Lastly, the investigation of ethnic differentials in large data sets only provides an indirect measure of discrimination because what is actually measured is the *residual gap* between different groups in an outcome (Midtbøen & Rogstad 2008; Pager & Shepherd 2008; Rogstad 2001). These limitations of traditional methods for measuring discrimination have paved the way for the increasing use of experimental approaches, usually referred to as *audit testing* in the literature.²

3 Audit testing

Audit testing was developed simultaneously in Britain and the US in the late 1960's. In the British case, the first study (Daniel 1968) was conducted to assess the extent of discrimination in areas that were not covered by the Race Relation Act of 1965, such as labour and housing markets (Riach & Rich 2002: 491). Similarly, in the US audit testing was introduced in conjunction with legal progress. As the economist Kenneth J. Arrow would put it later, discrimination in American society before the Civil Rights Act of 1964 was 'a fact too evident for detection, and too gross for aggravation' (Arrow 1998: 92). After the bill was adopted the most obvious examples of discrimination, for instance in advertising vacancies, disappeared. The pertinent question was thus whether it also implied less *de facto* discrimination or simply a change in expression, from an open to a more covert and subtle character.

Audit testing was introduced as a relevant method for investigating whether such a change had occurred. When investigating the prevalence of discrimination in employments, the method requires two individuals, one with a name and a physiological appearance of a person from the majority population, the other with a name and appearance signalling an ethnic or racial minority background, to apply for the same job. Because the two individuals are given the same

qualifications (i.e., identical education levels and work experience), and have the same age, the same sex, etc., systematically differential treatment of the minority applicant is interpreted as evidence of discrimination.

Compared to traditional methods of measuring discrimination, the audit method has several advantages. First, it documents the extent of discrimination based on the *actual treatment* of identical applicants, not on what employers say that they do, which is the case when using qualitative interviews or survey questionnaires. Second, the discrimination rate is a result of a *direct measure* of discriminatory treatment, not a reflection of indirect indications. Since the experimental design gives the researcher control over all the variables involved, it is possible to isolate an 'ethnic' variable and determine the causal effect of ethnicity on, for instance, access to the labour market. As such, and through studies from several countries over four decades, the audit method has proved important in documenting the continuing significance of racial and ethnic discrimination in modern societies (see reviews in Pager & Shepherd 2008; Pager 2007; Riach & Rich 2002).

4 Critique of the audit method

The audit test method has been an important contribution to the research on discrimination, traditionally in the Anglo-American world but in recent years also in a wider European context (e.g., Allasino *et al.* 2004; Attström 2007; Cediey & Foroni 2008; Zegers de Beijl 1999). However, the method has also been criticised on several occasions. On the one hand, objections are made with respect to research ethics, as field experiments by definition represent a violation of the widely held principle of informed consent when participating in research (Banton 1997; Midtbøen & Rogstad 2008; Riach & Rich 2004; Rogstad 1996). On the other hand, important questions are raised to what field experiments are actually measuring – i.e., the validity of the method – which is the topic addressed in this article.³ For an understanding of the methodological debate concerning audit testing it is worth giving a few examples from the early American research, which had a tendency to overstate the implications of its findings. We will then discuss the most important critique of the method, before turning to some different ways in which these may be met.

4.1 Devoted social scientists

Many readers of the audit literature may have been struck by the confidence of some of its practitioners. It might be the experimental character of the method, the opportunity to determine causal effects, and the apparently easily interpreted results which have created a research tradition marked by a certain presumptuousness on behalf of the conclusions drawn. An anthology published by The Urban Institute in Washington D.C., which summarises much of the early

research using audit testing, is a good example of the type of presumptuousness we have in mind. The anthology carries the illustrative title *Clear and Convincing Evidence* (Fix & Struyk 1993) and leaves little room to doubt the existence of a considerable amount of racial discrimination in American society or that the audit method documents this fact in a convincing way. The editors are also certain that the findings have one particular type of policy implication, namely the strengthening of the content and the enforcement of the civil rights law.

Another example is a symposium on racial discrimination, arranged at Princeton University in 1997 and later published in *Journal of Economic Perspectives*. At this symposium, three researchers accounted for the extent of racial discrimination in different marked arenas in the US, i.e., the labour market (Darity & Mason 1998), the consumer market (Yinger 1998) and the credit market (Ladd 1998). All three found comprehensive discrimination in their respective fields. As Darity & Mason write, there is 'a substantial racial [...] disparity in the American economy. [...] discriminatory treatment within the labor market is a major cause of this inequality. The evidence is ubiquitous' (Darity & Mason 1998: 63).

The point here is not to say that the audit method in general or these research projects in particular are problematic *per se*, but that researchers using this method should, like every researcher, interpret their findings with caution. When Yinger (1998: 36) states that audit testing documents the *causes* of discrimination or Darity and Mason (1998: 76) claim that discrimination in hiring, uncovered by testing, provides a convincing explanation for the ethnic differentials in *income*, in our opinion their conclusions are not to be regarded as clear and convincing evidence, but as generalisations which are not sustained by the actual findings.⁴

These critical remarks on some examples of early audit testing research are simply meant to emphasise what the test approach is actually measuring: The likelihood of landing a job for an individual with a racial or ethnic minority background compared to an individual from the majority population. However, in the methodological debate concerning the audit test technique, mainly originating from Heckman's contributions (Heckman 1998; Heckman & Siegelman 1993), other and more substantial reasons for questioning the technique have also been proposed.

4.2 Heckman's critique of the audit method

Heckman's first visit to the audit test tradition was in an article in the early 1990s anthology, *Clear and Convincing Evidence* (Fix & Struyk 1993). He and his colleague Peter Siegelman had been invited to comment on the research accomplished at The Urban Institute (Heckman & Siegelman 1993). In their response, they question the researcher's ability to construct identical test persons in every relevant aspect, arguing that differences between the candidates could bias the results in ways hidden from the researcher. Furthermore,

they point to the risk that the minority applicant may be motivated to document the existence of discrimination by 'performing worse' – resulting in a biased measure of discrimination. At the same time, the authors acknowledge that the audit test approach may offer valuable insight into the extent of discrimination, concluding that 'the audit pair methodology, properly augmented, promises to shed much new light on the nature of racial and ethnic disparities in labor market outcomes' (Heckman & Siegelman 1993: 227).

A far more direct critique of the scientific potential of the audit method was aired at the Princeton symposium on racial discrimination in 1997. Heckman was invited to comment on the three articles mentioned above and he states that the conclusions – in his words that the 'American society is riddled with racism and discrimination by employers' (Heckman 1998: 101) – by no means are made probable by the evidence proposed. In his view, the documentation of ethnic discrimination provided by the audit method is far less convincing than it is presented to be, and he argues that the results are 'fragile to alternative assumptions about unobservable variables and the way the labor markets work' (Heckman 1998: 102).⁵

Heckman has three main objections to the audit test method. First, he questions the *representativeness* of the research using the test technique. Early research has primarily investigated the occurrence of discrimination in low skilled occupations. This makes the foundation for generalisation vulnerable, partly because the testing is only implemented in a small section of the labour market and partly due to the fact that a large amount of jobs in the American labour market are found through social networks. Since audit testing leans on job openings advertised, such studies have a tendency to be highly unrepresentative.

Second, Heckman points to the way the discrimination rate is *calculated*. In the majority of research projects using audit testing, the net discrimination rate is estimated on the basis of the situations where at least one of the candidates gets a positive response.⁶ Heckman, however, argues that the discrimination rate has to be calculated on the basis of all situations where the two applicants are treated symmetrically – i.e., the sum of situations where both got a job and both were rejected. Considering that in the majority of tests neither of the applicants get a job offer (and hence are registered as non-observations in the literature), Heckman's proposed way of calculating discrimination dramatically changes the results: By re-analysing three audit studies accomplished by The Urban Institute and using his own calculation technique, Heckman shows that the evidence suggests only a slight preference in favour of the majority applicant (Heckman 1998: 105).⁷

The third objection concerns the existence of *unobservable variables*. The audit method is supposed to control for every relevant variable that might affect the outcome in hiring decisions by making the two applicants equally qualified, and hence measuring the causal effect of ethnicity on the probability to get a job. According to Heckman, however, researchers using audits for investigating discrimination in the labour market usually have limited knowledge

of the decisive determinants of productivity within firms. This insufficient institutional knowledge makes it unlikely that every relevant factor actually is perfectly matched in each test, raising the danger of biased results in favour of one applicant at the expense of the other. This may have two different consequences for the conclusions drawn: If the unobservable variables are in favour of the majority applicant, the results will suggest that discrimination occurs when it actually does not. On the other hand, and depending on the level of qualifications chosen for the applicants, the results may suggest equal treatment in contexts where unequal treatment is the norm, and hence that 'the method could fail to detect discrimination when it does exist' (Heckman 1998: 111).

In other words, the main argument for using the audit test approach – the possibility of measuring the causal effect of ethnicity in the access to employment – is disqualified, and, according to Heckman, the method therefore lacks embedment in social reality. His solution to these problems is to leave audit testing as a scientific method, focusing only on statistical analysis of large data sets. In Heckman's view, employers' discriminatory hiring practices are no longer relevant in explaining racial inequality in American society. The differences in income and employment are instead explained by pre-market factors – i.e., differences in skills that are due to inequality of family environments, schools and neighbourhoods – and not discrimination. This, according to Heckman, should in turn have implications for the direction of social policy.

5 From audits to correspondence testing: A first refinement of the experimental approach

Heckman's critique raises serious objections to the use of audit testing. In recent years, the presumptuousness that characterised parts of the audit testing research also seem to have evaporated. Overstated generalisations on the basis of test results are no longer the norm, and most researchers now seem to specify what is actually being measured. In addition, the critique has led to a change of test technique, where several researchers have switched to the correspondence testing method instead, leaving the audit method behind (e.g. Bertrand & Mullainathan 2004; Bursell 2007; Carlsson 2009; Carlsson & Rooth 2007; Jackson 2009; Kaas & Manger 2012).

While audit testing requires that actual individuals are sent in person to entry-level jobs acting as job seekers, correspondence testing does not involve individual test persons; instead, it corresponds with the employers through written applications. This difference meets several of Heckman's objections. First, it gives the researcher complete control over the experiment. The use of test persons, as Heckman has pointed out, introduces the risk of bias due to different performances, first impressions, etc. In correspondence testing, this bias is eliminated because the researcher controls the content of the applications. Unintended bias from the researcher is also avoided

by randomly assigning the names to applications each time they are sent to job openings, making correspondence testing a randomised experiment which provides a strong opportunity to draw causal inferences. Because correspondence testing avoids interaction between individuals, however, what is measured is job interview offers – so-called *call-back rates* – and not actual job offers. This is obviously a limitation. On the other hand, a comprehensive meta-study of the field experiment tradition show that about 90 per cent of the discrimination occurs in the stage of the job seeking process where job interview offers are made, making this limitation less decisive (Riach & Rich 2002: 494).

Second, shifting from audits to correspondence testing speaks to the question of representativeness. Not using test persons makes it possible to apply for more job openings and hence get more data, compared to the expensive and time consuming audit technique. Furthermore, the researcher is free to investigate the extent of discrimination not only in low-wage labour markets but also in occupations requiring an academic degree. Obviously, very high-skilled labour markets still represent a problem. Occupations requiring highly specialised qualifications are hard to apply for due to the difficulties in making reliable applications. Neither should the relevance of social networks in these labour markets segments be underestimated (e.g., Loury 1998; Petersen, Saporta & Seidel 2000). Particularly high-skilled labour markets are, however, not Heckman's main concern. His critique is aimed at audit studies which were 'conducted for hiring in entry level jobs in certain low skill occupations using overqualified college students during summer vacations' (Heckman 1998: 104). Although there are also limits to the generalisability of research using correspondence testing, this technique clearly allows for a wider range of occupations and qualification levels which, to a large degree, meets the problem of representativeness.⁸

6 Addressing the causes of discrimination: A second refinement

Heckman's critique of the audit method has proven productive in raising awareness of the potential pitfalls of field experiments in the social sciences and in increasing the utilisation of correspondence testing in discrimination research. Neither audit nor correspondence testing can, however, explain why and under what circumstances discrimination occurs. The question of causes is closely related to the last point in Heckman's critique, namely that the existence of unobservable variables – e. g., the reasons why employers act as they do – raises the danger of inferring the wrong conclusions from the outcome of a field experiment. Although obviously important, this point has been strangely overlooked in the literature (but see Neumark 2010 for an interesting discussion). In this last section of the article, we will thus present and discuss a research strategy which simultaneously addresses both the extent of discrimination and the mechanisms

involved in discriminatory practice; a dual objective which to some extent solves this problem in the field experiment tradition.

6.1 The advantage of combining methods

In a research project investigating the occurrence of ethnic discrimination in the Norwegian labour market (Midtbøen & Rogstad 2012), we coupled correspondence testing with in-depth interviews with a selection of the employers who had participated in the initial testing. 1800 written résumés and application letters were sent to job openings in 12 occupational categories in Oslo and the surrounding area. The different occupations were chosen to cover a relatively broad picture of the Norwegian labour market, varying from qualified occupations like economists, high school teachers and IT-professionals, to less qualified occupations such as drivers, warehouse workers and auxiliary nurses, in both the private and the public sector. We operated with two pairs of applicants, one male pair and one female pair, and for each pair there were two résumés with identical educational qualifications, length of work experience, etc., making the name of the applicants – one with a typical Norwegian name and the other with a name indicating Pakistani background⁹ – the only difference between the two. As soon as one or both of the applicants were contacted by an employer, the outcome of the test was registered and the job offers were politely refused. After a while, a selection of employers who had contacted one or both of the applicants received a letter informing them about the project and their participation, and encouraging them to contact us for an interview.

Letters were sent to 163 employers and 42 in-depth interviews were conducted, providing a response rate of approximately 25 per cent. 95 letters were sent to employers who had invited both candidates for a job interview, 64 letters to employers who invited only the candidate with a majority background and 4 letters were sent to employers that invited only the minority applicant. Among the final respondents there were employers from both the private and public sector and from occupations where both the male and the female pair applied. The interviews were conducted on the basis of tests where both applicants were invited for a job interview (23 interviews), where only the majority applicant was invited (17 interviews) and where only the minority applicant was invited (2 interviews). The distribution of responses among the employers who contacted us suggests that the research does not suffer from a direct selection bias – which might have been expected.

Although the combination of correspondence testing and qualitative interviews represent a novel research strategy in the study of discrimination, mixed method approaches in the field experiment traditions are not unique. One example is Pager and Quillian (2005), who matched an audit study with a telephone survey of the same employers and documented severe discrepancies between what employers say and what is actually done in practice. Another example

is Pager and colleagues (2009) who supplemented the findings of an audit study of a low-wage labour market with qualitative material from field notes the test persons had written down after interacting with employers in job interviews. Both of these approaches resulted in sophisticated analyses of contemporary patterns of discrimination and are important contributions to the field experiment tradition.

Despite these different strategies, recent research projects have not been able to provide a direct linkage between the outcomes of field experiments, the context of employment processes and the ways in which employers account for their recruitment practices. This is a general limitation in the discrimination literature due to the obvious importance of the role of the employers in the shaping of employment opportunities (see e.g. Jackson 2009; Moss & Tilly 2001; Waldinger & Lichter 2003; Kirschenman & Neckerman 1991; Nilsson 2006). When exploring the causes of ethnic discrimination in the Norwegian labour market, we thus ask the employers themselves to interpret and consider their actions and the amount of discrimination that we document through the field experiment. By encouraging the employers to reflect upon the dilemmas that occur when they are evaluating a set of job applications, we get closer to the uncertainty and stereotyping processes that characterise hiring decisions. Getting insight in the context of the employment processes also sheds light on the variety of reasons why employers act as they do, resulting in a more complex analysis than one could make from the outcomes of the field experiment alone.

6.2 Complicating empirical illustrations

Interpreting the outcomes of audits and correspondence studies is usually considered a more or less easy task: To put it simply, employers favouring the majority applicant are expected to display some sort of conscious or unconscious racial bias; employers who practise symmetrical treatment of the two applicants are seen as colour blind and unbiased; and the few employers actually favouring the minority applicant at the expense of the majority candidate are expected to represent firms with some kind of affirmative action policy. However, such straight-forward assumptions about the relationship between cause and effect in field experiments may be challenged by analysing two empirical examples from our interviews with Norwegian employers who have been through the initial testing stage.

The first example is an interview with a manager of a public nursing home outside of Oslo where only the majority applicant received a call-back. At the interview, the employer was at first surprised that the test had ended up that way, due to his self-understanding as tolerant of ethnic diversity and because the nursing home already had an ethnically heterogeneous workforce. Reflecting upon the result, he mentioned that he could have acted the way he did because the firm had a hiring policy which aimed at avoiding the dominance of any particular ethnic group – to ensure that Norwegian remained the firm's main language.

The second example represents a rather rare incident in our material because it is one of few examples in which the only applicant who received a call-back was the candidate with a minority background. These interviewees, the assistant director and a section manager of a private insurance company in Oslo city centre, were also surprised when confronted with the result of the test – but for the opposite reason: Rather than having an affirmative action policy, the company had no explicit intention of increasing the number of ethnic minority employees even though only one of the 50 employees was of foreign descent. Instead, the assistant director expressed the widely held view that job applicants with a minority background have to have better qualifications than majority applicants to be considered of equal value for the company.

The two examples are interesting because they challenge the immediate interpretation of the results known from earlier field experiments. To be sure, the manager of the public nursing home ascribed a lack of knowledge of the Norwegian language merely due to the foreign sounding name of the application: There was nothing in the résumé or application letter from the minority candidate which indicated that he was a threat to the language at the firm; on the contrary, an important aim of the field experiment was to measure the extent in which children of immigrants – i.e., individuals who have grown up in Norway and will have achieved linguistic fluency in Norwegian when they enter the labour market – are experiencing employment discrimination. However, the heterogeneous workforce at the nursing home gave no consistent indications of discrimination on the part of the manager, or that the next minority applicant would be treated the same way.

The case of the insurance company is even more interesting. Although we expected the few companies which favoured the minority applicants to run an explicit affirmative action policy, the interviewees were among the most clear spoken in our data material in saying that minority applicants have to prove themselves *more* productive than their majority peers to be considered as equal candidates for a job. That the minority candidate was preferred in this case thus might have been a coincidence, but later in the interview the assistant director of the insurance company also mentioned that due to a recent change in the ethnic composition of their clientele they had discussed the relevance of hiring a multilingual candidate for this position, which might explain this rather contradictory finding. In any case, it should be apparent that insight into the contexts in which hiring decisions are made complicates the initial inferences one would draw from the outcomes of a field experiment.

7 Revisiting the critique of the field experiment tradition

What are the methodological implications of these empirical illustrations? Heckman concludes that the potential biasing effects of unobservable variables at the firm level should lead to the

abolishment of field experiments as a method for studying the extent of discrimination in different market contexts. The two examples discussed above indeed suggest that factors unobservable for the field experiment researcher should not be neglected. Firms and industries differ in terms of the ethnic composition of the workforce, the experiences employers have with managing ethnically diverse workplaces, and they differ in terms of organisational policies and recruitment strategies. These factors are just some of many which may affect the hiring decisions employers make, and ignoring them may bias our understanding of the dynamics of discrimination.

It is, however, far from recognising the importance of contextual knowledge of firm characteristics and recruitment strategies in interpreting the findings from field experiments to suggest that this entire tradition of discrimination research is without scientific value. Heckmans critique of the audit method does ignore the overwhelming fact that for 40 years sociologists and economists have documented that ethnic and racial discrimination continue to shape the access to opportunities for young men and women across a wide range of countries. This research cannot be overlooked, but it is time to address some of its methodological limitations. One important way of doing this is to combine field experiments with qualitative methods because crucial knowledge of the context of employments and the mechanisms involved in discriminatory practices cannot be accessed without some sort of qualitative approach.

This methodological stance also has theoretical implications: Recent studies have borrowed insight from social psychology (in particular Fiske 1998), arguing that unconsciously working stereotypes may explain why racial and ethnic minorities continue to experience unequal access to opportunity (see e.g., Bertrand, Chugh & Mullainathan 2005; Reskin 2000; Reskin 2008; Quillian 2008; Rooth 2007; Quillian 2006; Quillian & Pager 2010). We agree that stereotypes are important causes of discrimination, and hope that the adoption of perspectives from social psychology may offer a way out of the ever-lasting discussion of motive-based explanations well known from the economics literature. Used in relation to field experiment research, however, these theoretical discussions tend to assume that all discriminatory outcomes may be explained by the same factor (i.e., stereotypes), while the causes of equal treatment and 'reverse' discrimination (a call-back only for the minority applicant) are seldom addressed. The implication of this tendency is not just that the situations where employers are 'caught in the act' of discrimination are the only cases worth theorising. Leaving other outcomes unexplained and the possibility for mediating contextual factors providing more or less room for discrimination unaddressed, what started as a methodological problem (the limitations of field experiments) has consequences for the theoretical contributions to the research on discrimination and ethnic inequality. In scratching the surface of the outcome numbers we are reminded that the processes in which ethnicity come to matter are highly complex and that the interpretation of the findings from field experiments should be treated with caution. While the results of research using only

the testing technique are unable to clarify more than the fact that discrimination in employments exists, supplementing field experiments with qualitative approaches complicate this one-sided picture of the discrimination complex, paving the way for new insights into the dynamics of contemporary discrimination.

8 Conclusion

In this article, we have argued that a combination of correspondence testing and in-depth interviews with employers represents an innovative way to address questions of the extent and causes of ethnic discrimination in the labour market. Using only the audit or correspondence technique may result in conclusions based on insufficient knowledge of the context of employment and thereby increasing the danger of drawing inferences on a wrong basis. Supplementing the testing with qualitative interviews, on the other hand, enables a more substantial understanding of the processes leading to ethnic inequality in the labour market, thus offering both methodological and theoretical advantages over single-method approaches to the study of discrimination.

Why is it important to address the extent and causes of ethnic discrimination? Whether or not discrimination is an important factor explaining ethnic differentials in the labour market is still a debated question, and the answer has significant implications for the development of social policy. Field experiments usually document that discrimination in the labour market exists, providing a more or less explicit recommendation to strengthen civil rights law. On the basis of a critical dissection of the audit method, however, Heckman (1998) argues that racial differences in income and employment in the US are due to the different skills racial groups bring to the market, and not to discrimination *within* the market. According to him, the important tasks are skill promotion through the improvement of schools and neighbourhoods.

This discrepancy in the implications of research results illustrates the importance of understanding the mechanisms creating ethnic differentials in the labour market. Such an understanding includes a focus on the employers, who, through their role as gatekeepers, determine access to opportunities in the labour market. Despite the legal protection of ethnic minorities in hiring processes, employers have the autonomy to determine who is hired and who is not, and they have a wide range of legitimate arguments to justify their decisions. Hence it is clear that an understanding of why, when and under what conditions employers discriminate is of unquestionable relevance for the legal and political means to prevent such discrimination.

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Notes

1. The project was submitted to The National Ethical Committee for Research in The Social Sciences and Humanities (NESH) in Norway in September 2008 and received approval in March 2009. To minimise the ethical challenges involved in the design, particularly the potential negative consequences for the employers that were confronted with the outcome of their decisions, we avoided any normative 'blaming' of the employers' decisions. Furthermore, to participate in the interviews the employers themselves had to respond to a written invitation, providing an informed consent in the second part of the study. The original application to NESH, the subsequent discussion and the final letter of approval can be found in Rogstad and Midtbøen (2009).
2. Audit testing is equivalent to *situation testing*, which has been a more widely used term in European research, but differs from *correspondence testing* which will become apparent later on in this article. More general concepts including all the different testing techniques are 'discrimination testing' or 'field experiments'.
3. By leaving the ethical challenges involved in experimental research at this point, we do not suggest that such challenges are unimportant. In our opinion, the problems concerning the ethical dimension of field experiments have been too poorly addressed in the literature. There are reasons to question a frequent use

of such methods unless the research design allows for a more substantial understanding of the mechanisms leading to ethnic inequality. Field experiments conducted without being supplemented with other methods, we argue, do not have the ability to shed light on much more than the fact that discrimination exists and the relevance of each new project should consequently be ethically scrutinised. See Midtbøen and Rogstad (2008) for an elaboration of this argument and Rogstad and Midtbøen (2009) for a detailed account of the process leading to the approval of this current project by NESH.

4. Yinger (1998) does acknowledge, however, that the causes of discrimination may be multifaceted and that more research is needed to further explore the mechanisms involved in discriminatory practices in the market place. Still, he leaves the impression that field experiments can assess this situation, which we argue they cannot.
5. Heckman limits the discussion to audit testing used to investigate ethnic discrimination in the labour market, and we will concentrate on this area in the subsequent sections.
6. To put it more technically, the net discrimination rate is estimated by dividing the difference between the positive responses where only the majority candidate was preferred and the positive responses where only the minority applicant was preferred, with the sum of all positive responses. This is the most frequently used measure for discrimination in the literature.
7. The correct way to calculate the discrimination rate is an ongoing debate in the literature and has been most discussed problem in the aftermath of Heckman's critique. In this article, we will concentrate on his other objections to the testing approach, but see Pager (2003) and Pager and colleagues (2009) for excellent examples of which results from field experiments may be presented in easy interpretable ways which at the same time meet Heckmans' objections.
8. Switching from audits to correspondence testing also has ethical consequences: Completing the full employment process by which employers have to make a decision as to whether the fictitious in-person applicants should get a job offer or not, as is the case when conducting an audit study, is far more challenging than in correspondence testing, where actual interaction between individuals does not take place at all and where the process is finished at an earlier stage. The ethical problems attached to the audit method are, however, not of Heckman's concern.
9. Immigrants of Pakistani heritage comprise one of the largest immigrant communities in Norway and were among the first of the 'new' immigrants to arrive in the late 1960s (Brochmann & Kjeldstadli 2008). In 2009, the children of Pakistani immigrants furthermore constituted 34 per cent of the so-called 'second generation' in Norway (Olsen 2011), making this group suitable for a field experiment.

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DISCRIMINATION OF THE SECOND GENERATION: EVIDENCE FROM A FIELD EXPERIMENT IN NORWAY*

Arnfinn H. Midtbøen

Abstract

A major question in labour market research is the extent to which discrimination in employments causes the disadvantages experienced by children of immigrants. This article contributes to the debate by utilising a correspondence test study in which pairs of equivalent résumés and cover letters – one with a Pakistani name and one with a Norwegian name – were sent in response to 900 job openings in the greater Oslo area. The results show that applicants with Norwegian names on average are 25 per cent more likely to receive a call back for a job interview than equally qualified applicants with Pakistani names. More refined analyses demonstrate that the effect of ethnic background on employment probabilities is larger among men than women and larger in the private sector than in the public sector, and important variations among the occupations included in the study are revealed. In an effort to separate the potentially conflating effects of gender and sector, all applications to gender-segregated occupations were removed from the analyses. Interestingly, the gender differences disappear when exclusively analysing discrimination in gender-integrated occupations by sector. In gender-integrated occupations in the private sector, the gender difference in fact is reversed, indicating that women with minority background are treated less favourably than are minority men in the private sector. These results suggest that the intersection of gender, ethnicity, and sector should be scrutinised more carefully in future field experiments.

Key words: Discrimination; ethnicity; field experiment; second generation; employment

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Introduction

Persistent patterns of ethnic inequality represent a continual challenge in European labour markets. In particular, the employment opportunities for children of immigrants are a matter of growing concern (Crul and Vermeulen 2003; Heath et al. 2008; Thomson and Crul 2007). Contrary to many of their immigrant parents, the so-called second generation¹ usually has acquired linguistic fluency and formal domestic education. As such, they have a substantial capacity for labour market integration (Alba and Waters 2011a). Nevertheless, recent comparative studies suggest that children of immigrants do not have access to employment on par with their majority peers (Heath and Cheung 2007; OECD 2010). Because several of the factors explaining the challenges facing immigrants in the labour market do not apply to the second generation, these findings have resulted in a renewed interest in the question of employment discrimination. To what extent does discrimination by employers cause the labour market disadvantages currently experienced by children of immigrants?

Traditional methods for studying discrimination can only provide indicative answers to this question. Surveys of potential victims of unequal treatment may result in both over- and under-reported levels of discrimination, surveying employers may conceal the discriminatory practices actually taking place, and statistical analyses cannot rule out the possibility that omitted variables are biasing the effect attributed to ethnic background (Blank et al. 2004, part II; Pager and Shepherd 2008; Quillian 2006). These measurement problems have resulted in an increased interest in field experiments in the social sciences. In a field experiment, two fictitious job candidates apply for the same job opening. The candidates are equally qualified in terms of education and work experience, and are the same sex, the same age, etc., but differ in terms of racial appearance or ethnically distinctive names. Insofar as the results show a systematic preference for one of the candidates, this is evidence of employment discrimination (Pager 2007; Riach and Rich 2002).

In this article, I present the findings from a field experiment in Norway in which pairs of fictitious résumés and cover letters, equal in merit but with different ethnic backgrounds, were sent in response to hundreds of job openings in the greater Oslo area. Pakistani names were chosen to signal ethnic minority background in the study because Pakistani immigrants and their descendants make up a large and well-known minority group in Norway, and survey data indicate that this group experiences discrimination in the labour market (Statistics

¹ I define the second generation as children of immigrants, either born in their parents' destination country or arrived before adolescence. This definition is in line with Portes and Rumbaut (2005), Thomson and Crul (2007), and Alba and Waters (2011a), but differs from Heath and Cheung (2007), who reserve the term exclusively to individuals actually born in the 'host country' by one or more immigrant parents.

Norway 2009b). Furthermore, as children of Pakistani immigrants constitute the largest single group among the second generation (34 per cent) and are currently finishing their education and entering the labour market (Statistics Norway 2011: 10), exploring the extent to which this group faces barriers in accessing employment is particularly relevant when assessing the situation for the second generation in Norway.

Although the body of field experimental research is rapidly increasing, (see recent reviews in Charles and Guryan 2011; Levitt and List 2009; Pager 2007), this particular study represents at least two novelties. First, there is an explicit focus on the second generation. With a few notable exceptions (Carlsson 2010; Fibbi et al. 2006; Kaas and Manger 2012), the field experiment methodology has not been used to assess the situation for children of immigrants, and none of these studies relates its findings to the existing literature on the integration of the second generation in Western Europe. Because the experimental design is particularly useful in measuring the extent to which the ethnic background of job candidates directly shapes employment prospects, this study complements existing knowledge of the labour market barriers facing children of immigrants.

Second, it is the first field experiment of employment discrimination ever conducted in a Norwegian context.² Norway is a relatively young net immigration country with a traditionally quite homogenous population (Brochmann and Kjeldstadli 2008), and the second generation has just recently entered the labour market (Statistics Norway 2011). In line with previous research on discrimination rates in the European periphery (e.g. McGinnity and Lunn 2011), this might suggest widespread discrimination of ethnic minorities. At the same time, Norway is a social-democratic welfare state with a well-regulated labour market historically oriented towards egalitarian principles and a ‘passion for equality’ (Graubard 1986), which could have a positive impact on the integration of the children of immigrants. Important characteristics of the Norwegian context thereby point in different directions when it comes to predicting the general employment outcomes for the second generation, making empirical examination of discrimination patterns in the Norwegian labour market an interesting case for analysis.

I proceed by providing a short review of the literature on the second generation, its theoretical development, and important empirical characteristics. Then, I introduce the field experiment methodology and present the research design and the key results of this particular study, highlighting important variations in discrimination rates between the private and the

² However, one former field experiment has explored the role of discrimination in the Norwegian housing market (Andersson et al. 2012).

public sectors, between men and women, and across occupations. In the conclusion, I discuss the findings in light of the theoretical and empirical literature on trajectories of labour market integration among the second generation in Western Europe.

Previous research on the second generation

A major debate among migration scholars over the past two decades has concerned the extent to which children of immigrants will assimilate into mainstream society, or face disadvantages similar to, or worse than, their parents. Starting out with notions of a ‘second-generation decline’ (Gans 1992) and ‘segmented assimilation’ (Portes and Zhou 1993), influential theorists predicted that significant numbers of the children of immigrants arriving in the United States after 1965 would be incorporated into marginalised sectors of the economy. This pessimistic scenario was later criticised by scholars arguing that the second generation is rather absorbed into and contributes to redefining the ‘American mainstream’ (e.g. Alba and Nee 2003; Waldinger and Perlmann 1998). However, recent empirical results have supported the theory of segmented assimilation by documenting that there are indeed different ‘modes of incorporation’ within the second generation; some groups experience upward mobility while others assimilate into poverty and marginalised positions in the U.S. labour market (Portes et al. 2005, 2009).

The theoretical models used to explain the trajectories of adaptation among children of immigrants were, for many years, dominated by American scholars and developed to understand the particular U.S. context. Recently, however, the applicability of these theories to Western Europe has been questioned (e.g. Alba 2005; Alba and Waters 2011b; Crul et al. 2012; Heath et al. 2008; Thomson and Crul 2007). In line with the optimistic scenario, a comparative study investigating educational merits and labour market outcomes among children of immigrants in several European countries suggests that the second generation on average is experiencing upward mobility compared to their parents (Heath and Cheung 2007). Yet there are large variations between groups; children of immigrants from less-developed countries seem to be severely disadvantaged, indicating that different modes of incorporation are also a reality in the European context (Heath et al. 2008).

A major contribution of the European research has been to highlight the importance of national and institutional variation in determining the opportunities and barriers facing children of immigrants. In some countries, such as Austria, Belgium, and Germany, the second generation seems to experience cumulative patterns of disadvantage even after employment is secured, while in others, such as Britain and Sweden, the barriers mainly exist

at the entrance to the labour market (Heath et al. 2008: 220). In Norway, a recent study following the design used by Heath and Cheung (2007) suggests that children of non-European immigrants have a lower probability of being employed compared to equally qualified majority peers, even after controlling for social origin (Hermansen 2013; see also Evensen 2009). Yet they do not seem to face cumulative disadvantages, adding Norway to the list of countries in which the barriers to labour market inclusion seem to be highest at the entrance level (Hermansen 2013: 14).

While the above-mentioned empirical studies demonstrate the fact that children of immigrants all over Western Europe experience ‘ethnic penalties’ in accessing labour market opportunities, the relevance of employment discrimination in explaining these findings is unclear. Traditional quantitative approaches to the study of ethnic disparities cannot rule out alternative interpretations of the disadvantages observed (e.g. Pager and Shepherd 2008). Although children of immigrants should be highly employable because they have usually acquired fluency in the majority language as well as domestic educational qualifications and work experience, they might lack, for example, the social networks needed to access parts of the labour market (Petersen et al. 2000). Thus, the extent to which discrimination causes the disadvantages observed is a question which traditional statistical approaches cannot answer.

The field experiment methodology – strengths and limitations

The field experiment methodology offers a more direct approach when compared with the indirect measures of discrimination that characterise quantitative studies. Field experiments appear in two main forms: audit studies and correspondence studies. In audit studies (called ‘situation testing’ in the series of studies conducted by ILO in the 1990s), pairs of individuals who are matched in terms of relevant productivity characteristics, but who differ in racial visibility, apply for real-world jobs by appearing in person (e.g. Pager 2003; Pager et al. 2009). In correspondence studies, matched pairs of résumés differing in the names of the applicants (signalling different race or ethnicity) are sent in response to job openings (e.g. Andriessen et al. 2012; Oreopoulos 2011). In both types, the direct effect of race or ethnicity on employment opportunities is measured, and because all other factors are isolated and the résumés are randomly assigned to the test persons, well-conducted field experiments provide convincing estimates of the prevalence of racial or ethnic discrimination in specific labour markets (Quillian 2006: 303).

It is important to note that the concept of discrimination implicit in field experiments differs somewhat from the standard definition of discrimination, which refers to the unequal

treatment of individuals or groups on the grounds of their ethnic background. Because field experiments used for research purposes construct situations or ‘tests’ in which employers are considering paired résumés of identical quality, the single act of choosing one candidate in favour of another may be the result of a coincidence. As Pager and Western (2012: 233) argue, the strength of field experiments is not to detect discriminatory tendencies of any given employer (which would require multiple tests of the same employer), but to explore whether minority applicants are *systematically* disadvantaged in accessing employment. Furthermore, although providing a ‘clean’ estimate of discrimination in hiring, field experiments do not measure differential treatment in processes of wage negotiation, promotion, and firing – nor do they shed light on neutral rules with disparate impact on different groups, or workplace cultures characterised by in-group favouritism (see e.g. Craig 2007 and Sturm 2001 for these aspects of discrimination). In sum, field experiments measure the average effect of race or ethnically distinct names on employment opportunities.

Despite its advantages, the field experiment tradition has also been the subject of debate. Some scholars point to the deceptive character of the method, discussing the ethical problems attached to presenting fictitious job candidates to employers (e.g. Banton 1997; Riach and Rich 2004; Rogstad 1996). Others are concerned with the researcher’s ability to construct real-world test persons as well as with the representativeness of the results due to the limited part of the labour market that has been subjected to experimental research (Heckman 1998; Heckman and Siegelman 1993). However, most of these challenges relate to in-person audit studies. In correspondence studies, employers are never confronted with actual individuals, making the ethical problems less prominent (although they do not disappear) and eliminating the potential biasing effects of different performance levels and first impressions. Moreover, because correspondence studies allow for more tests in a broader portion of the labour market, the problem of representativeness is less decisive (see Midtbøen and Rogstad 2012 for a detailed account of these points). Of course, audit studies have the benefit of observing employment processes to the actual hiring stage, while correspondence studies measure differences in job interview offers (so-called call-back gaps). Still, a review of existing field experiments suggests that the level of discrimination is highest in the call-back stage of the application process (Riach and Rich 2002: 494), making this limitation less important.

A major disadvantage of correspondence studies concerns uncertainty as to what a name represents in practice. In a much cited correspondence study from the U.S. (Bertrand and Mullainathan 2004), ‘African-American’ and ‘White-sounding’ names were used to

signal racial differences between the fictitious applicants. As the authors discuss, the names could also signal different social backgrounds, indicating that employers may be inferring class differences rather than racial differences from the names, which potentially could bias the measured effect of race on employment prospects (Bertrand and Mullainathan 2004: 1007).

In a European context, field experiments usually measure the prevalence of ethnic rather than racial discrimination. However, there is no straightforward relationship between names and ethnicity. For the employers, a foreign name may evoke associations to nationality or religion, not only to ethnic background. For example, although Pakistani names signal ethnic minority background in this field experiment, the names may also signal a more general Muslim background. Furthermore, operationalising ethnic minority background by Pakistani names challenges the ability to generalise the findings to other ethnic groups. Social-psychological research has suggested that ethnic groups which are considered culturally and socially deviant are ranked lower than others (Snellman and Ekehammar 2005), and there are reasons to suspect that Muslims are particularly low-ranked in European countries today (Adida et al. 2012). A Muslim name may thus evoke stronger prejudices and lead to higher discrimination rates than would a non-Muslim foreign name.

Previous field experiments provide a rather mixed picture when assessing the relevance of ethnic hierarchies in employers' decision-making. Some studies report different discrimination rates between ethnic groups (e.g. Booth et al. 2012; Fibbi et al. 2006) while others conclude that the differences between groups are surprisingly small (e.g. Andriessen et al. 2012; Bursell 2012). In Ireland, most notably, McGinnity and Lunn (2011) found that fictitious applicants with Irish names were more than twice as likely to receive a call back as applicants with foreign names, but no significant differences were found between applicants with African, Asian, and German names. These contradictory results serve as a reminder that although the field experiment literature often refers to general notions of 'ethnic discrimination', what a correspondence study precisely measures is the probability of receiving a job interview offer for fictitious applicants with particular foreign names compared with equally qualified applicants with native names.

In this study, the minority applicants have Pakistani names, and the discrimination rates are not directly transferable to other groups. However, as the fictitious job candidates are young (25 years), the résumés and cover letters are written in fluent Norwegian and all schooling and work experiences are from Norway, the minority applicants represent credible *descendants* of Pakistani immigrants applying for work. Thus, the findings shed light on the

employment opportunities of a large section of the second generation in Norway, currently finishing their education and entering the labour market.

Obviously, employers may not perceive the fictitious applicants as children of immigrants. Qualitative research suggests that the second generation appears ‘invisible’ in the eyes of Norwegian employers, indicating that applicants with foreign names are perceived as immigrants regardless of what is stated in their résumés (Midtbøen forthcoming). A recent field experiment in Sweden (Carlsson 2010) has further documented significant call-back gaps between applicants with native Swedish names and Arabic names, but no differences between minority applicants from the first and second generation, suggesting a lacking awareness of children of immigrants as prospective applicants. Still, these findings should not keep researchers from conducting field experiments to measure the extent to which children of immigrants are discriminated against in employment processes. If second generation applicants are perceived as immigrants, and it constitutes a significant barrier to receiving job interview offers, then this perception represents a major challenge to the structural inclusion of ethnic minorities, which should be addressed by empirical research and receive more attention in public debate.

Research design

Constructing pairs of fictitious job candidates

The main objective of a field experiment is to isolate the causal effect of ethnic background on employment prospects. In a correspondence study, this entails the challenge of constructing pairs of résumés and cover letters that are equal in all factors other than the name, but which at the same time are both different and reliable – to be perceived by employers as two actual candidates applying for the same job.

In this study, these requirements were met in the following way. The fictitious job candidates in each pair had similar educational merits, work experience, and language and computer skills. Text was written in fluent Norwegian, and the candidates always met the formal requirements listed in the job advertisement. The only practical difference between the two applicants was their names, with one applicant in each pair having a Pakistani name and the other a native Norwegian name.³ As mentioned above, Pakistani names were chosen to represent ‘ethnic minority background’ in the study because Pakistani immigrants and their children constitute one of the largest minority groups in Norway, and Norwegian-born

³ The Pakistani names used in the experiment were Kamran Ahmad and Saera Rashid; the Norwegian names were Andreas Hansen and Ida Johansen.

individuals with a Pakistani background constitute by far the largest group among the second generation (Statistics Norway 2011). As such, using Pakistani names increased the probability that employers considered the fictitious minority applicants as being children of immigrants.

To make the fictitious résumés and cover letters in each pair look different, cosmetic adjustments were made. While keeping the content of the paired applications identical, the fonts varied, and the order of listed qualifications in the résumés and the exact wording in the cover letters were somewhat different. Obviously, this could result in a measurement error due to potential quality differences within each pair. To avoid any systematic relationship between signatures and texts, however, the names of the applicants were randomly assigned to the documents. Furthermore, as each job application consisted of one résumé and one cover letter, the combination of these two documents was switched halfway through the experiment. Consequently, any systematic difference in call-back rates between the fictitious applicants is attributed to their different names and interpreted as an effect of discrimination.

Finally, the reliability of both résumés and cover letters was ensured by presenting first drafts to experienced recruitment personnel. Based on their advice concerning both appropriateness and equivalence, paired templates were obtained for each occupation. In practice, new skills (e.g. familiarity with specific computer programmes) were added when necessary, and the wording in the cover letters was slightly adjusted to fit each job posting.

Gender, sector, and occupation

Recent field experiments have suggested that discrimination rates are affected by occupational characteristics and the gender of the applicants (e.g. Andriessen et al. 2012; Bursell 2012). To explore whether the effect of ethnic minority background also varies with gender, sector, or occupation in the Norwegian labour market, two pairs of fictitious résumés and cover letters – one female pair and one male pair – were sent in response to job opportunities in twelve occupational categories in both the private and the public sectors. The sample included jobs requiring a low skill level (e.g. auxiliary nurses, warehouse workers, and drivers) and jobs requiring three to four years of formal education (e.g. primary school teachers, financial controllers, and IT advisors).

Compared to many other countries, a high percentage of the adult population in Norway is employed. This is mostly due to the large proportion of working women; seven out of ten women and almost eight out of ten men are currently employed. However, the Norwegian labour market is characterised by quite high levels of occupational gender

segregation (EGGE 2009). Women dominate the large public sector, in which more than 30 per cent of the total workforce is employed (Statistics Norway 2009a).

These characteristics of the Norwegian labour market were considered when implementing the field experiment. To not ‘disturb’ the treatment variable (ethnicity), the structure of occupational gender segregation was considered in the sense that the pair of fictitious female job candidates applied to occupations dominated by women (e.g. within health and social work), while the pair of male candidates applied to occupations already dominated by men (e.g. transport and warehousing). This way, situations in which minority applicants of the under-represented gender were preferred or rejected based on gender, rather than ethnic background, were avoided.

The disadvantage of this strategy is, however, that the discrimination rates in female and male dominated occupations cannot be compared directly, and that what appears as gender effects may in fact be the effect of sector or occupational characteristics. Therefore, more gender-balanced occupations in financial services, teaching, communications, and public administration were also included in the sample.⁴ To these occupations, both the female and the male pairs of fictitious applicants were sent (although not to the same job vacancies), enabling an opportunity to explore possible gendered effects of ethnic discrimination. Table 1 provides an overview of the number of résumés, by gender and occupation.

Table 1 *Number of résumés, by gender and occupation*

Occupation	Women	Men	Total
<i>Female-dominated occupations</i>			
Pre-school teacher	262	0	262
Nurse	192	0	192
Auxiliary nurse	40	0	40
<i>Male-dominated occupations</i>			
IT Advisor	0	218	218
Warehouse worker	0	144	144
Driver	0	100	100
<i>Gender-balanced occupations</i>			
Primary school teacher	84	56	140
Public consultant	56	40	96
Information officer	16	98	114
Accounting assistant	94	130	224
Insurance advisor	56	94	150
Controller	48	72	120
Total	848	952	1800

⁴ In the six industries covered in this field experiment, the share of women is as follows: health and social work (82.1 per cent), teaching (62.7 per cent), public administration (47.4 per cent), finance and insurance (43.1 per cent), information and communications (29.5 per cent), and transport and logistics (21.4 per cent). The numbers have been collected from Statistics Norway’s Labour Force Survey 2011. The main findings from this survey are available in English: http://www.ssb.no/english/subjects/06/01/yrkeaku_en/.

Implementing the field experiment

Employers were sampled from job postings on the main recruitment websites in Norway – finn.no (private) and nav.no (state funded). In principle, the experiment included every job listed on these websites within the twelve occupational categories, in the greater Oslo area, and in the period the data were collected. However, there were a few exceptions to this rule. Some employers had several listings in this period, and unless they were large corporations divided into different sections with their own recruitment personnel, only one pair of applications was sent to each listing.

Each of the four fictitious job candidates had a real cell phone number and e-mail address as well as a fictitious postal address, and these contact details were included on each résumé. The documents were primarily sent from the fictitious applicants' e-mail addresses or uploaded to the recruitment websites. However, a substantial number (29 per cent) of the companies did not allow documents to be uploaded. Instead, they had forms where applicants were required to register their contact information, résumés, and brief statements describing why they were suited for the job. Although this process was time consuming, companies using these recruitment procedures were also included in the sample, because public companies were over-represented in this group and it was desirable to compare call-back rates between the public and private sectors.

Employers contacting the fictitious applicants on cell phones were directed to a personal voice mail presenting (in fluent Norwegian) the name of the applicant and encouraging contact information to be shared. The research team monitored all voice mails and e-mails at least once a day. When the applicants received a job interview offer, the responses were carefully registered and matched with the data on each test (e.g. date of test, company name and address, job type, listed requirements, and gender of the applicant). Depending on whether the responses were given via phone or e-mail, the interview offers were politely refused by text message or e-mail. Because the postal addresses were fictitious, any attempts by employers to contact the applicants by post could not be measured, but previous research has suggested that this probably had minor effects on the overall results, since very few employers today contact applicants by ordinary mail (Bertrand and Mullainathan 2004: 997).⁵

⁵ Subsequent interviews with a subsample of the employers included in this field experiment confirmed that this is also the case in the Norwegian labour market context.

As Andriessen et al. (2012: 249) note, a call back by phone is not necessarily synonymous with a job interview offer. For example, employers may want to let applicants know in person that they are not suitable for a job. Thus, employers who left a message asking the applicant to call back received a text message or an e-mail to determine whether the enquiry was equivalent to a job interview offer. In the vast majority of cases, a call back was indeed meant for a job interview, and the employers' response was registered as such. This extra effort resulted in a clear dependant variable measuring the rate of job interview offers rather than the more ambiguous call-back rate, which has been most frequently used in the field experiment literature.

Experimental results

Descriptive results

The correspondence study was conducted between November 2009 and November 2010, and the paired, fictitious résumés and cover letters were sent in response to a total number of 900 job openings. Each test had four possible outcomes: neither of the applicants is invited for a job interview, both are invited, only the majority candidate is invited, or only the minority candidate is invited. The first row in Table 2 shows the aggregate distribution of outcomes. In 497 out of 900 cases, neither of the fictitious candidates received a job interview offer, while both candidates were invited in 269 cases. In 116 cases, the applicant with a Norwegian name was the only one receiving a job interview offer, while in 18 cases, only the applicant with a Pakistani name was invited.

This difference in job interview offers between the two fictitious candidates results in a so-called 'net discrimination rate' of 24.3 per cent [Column 6]. This is a measure calculated by dividing the difference between the positive responses where only the majority candidate was preferred [4] and the positive responses where only the minority applicant was preferred [5], by the sum of all positive responses [3]+[4]+[5]. However, what this measure of discrimination actually means is somewhat unclear, and there is an on-going controversy about how it should be calculated (see Heckman 1998; Riach and Rich 2002). Therefore, I prefer the measures used in the American field experiment literature (e.g. Bertrand and Mullainathan 2004; Tilcsik 2011), which simply compare the percentage difference in positive call backs between the applicants. This way, a meaningful and easily interpreted measure of ethnic discrimination – the probability of receiving a job interview offer for the minority candidate relative to that of the majority candidate – is provided.

Table 2 Classification of responses and mean call-back rates, by ethnic background

	Number of jobs [1]	None invited [2]	Both invited [3]	Only majority invited [4]	Only minority invited [5]	Net discrimination rate* [6]	Percentage back Norwegian names [7]	Percentage call Pakistani names [8]	Ratio [9]	Percentage difference (p-value) [10]
Aggregate results	900	497	269	116	18	24.3 %	42.8	31.9	1.34	10.9**
Gender										
Women	424	176	194	47	7	16.1 %	56.9	47.5	1.20	9.4**
Men	476	321	75	69	11	37.4 %	30.3	17.8	1.70	12.5**
Sector										
Private sector	597	347	135	100	15	34.0 %	39.3	25.1	1.57	14.2**
Public sector	303	150	134	16	3	8.7 %	49.5	44.4	1.11	5.1
Occupation										
Pre-school teacher	131	28	89	11	3	7.8 %	76.3	70.2	1.08	6.1
Primary school teacher	70	26	41	3	0	6.8 %	62.8	58.6	1.07	4.2
Nurse	96	37	47	9	3	12.2 %	58.9	52.1	1.13	6.8
Auxiliary nurse	20	11	5	4	0	10.2 %	45.0	25.0	1.80	20.0
Public consultant	48	38	8	2	0	20.0 %	20.8	16.6	1.25	4.2
IT Advisor	109	74	21	12	2	28.6 %	30.3	21.1	1.43	9.2
Information officer	57	51	2	2	2	0 %	7.0	7.0	1.00	0.0
Accounting assistant	112	69	23	19	1	41.9 %	37.5	21.4	1.75	16.1**
Insurance advisor	75	42	16	16	1	45.5 %	42.6	22.6	1.88	20.0**
Controller	60	49	4	7	0	63.6 %	18.4	6.7	2.75	11.7*
Warehouse worker	72	51	5	13	3	47.6 %	25.0	11.1	2.25	13.9*
Driver	50	21	8	18	3	51.7 %	52.0	22.0	2.36	30.0**

*The net discrimination rate is estimated by dividing the difference between the positive responses where only the majority candidate was preferred [4] and the positive responses where only the minority applicant was preferred [5], by the sum of all positive responses [3]+[4]+[5].

Notes: This table reports descriptive results for the entire sample and different subsamples of the matched job applications. Column [1] reports the number of job advertisements (i.e. tests). Columns [2]-[5] report the number of tests resulting in the four possible outcomes of each test. Column [6] reports the net discrimination rate. Columns [7] and [8] report the call-back rates for applicants with a Norwegian name and a Pakistani name, respectively, and Column [9] denotes the ratio between the two. Finally, Column [10] reports the difference in percentage points between the two call-back rates, as well as the *p*-value, testing the null hypothesis that the call-back rates are equal across ethnic groups (*=*p*<.05 and **=*p*<.01).

As columns [7] and [8] in the first row of Table 2 demonstrate, the fictitious job candidates with a Norwegian name were invited to a job interview 42.8 per cent of the time, while the applicants with a Pakistani name were invited 31.9 per cent of the time. This difference of 10.9 percentage points implies that having a Pakistani name reduces the probability of receiving a job interview offer by 25.5 per cent. Being statistically significant at the 1 per cent level, the call-back gap between equally qualified job candidates clearly demonstrates that children of Pakistani immigrants do experience discrimination at the entrance to the Norwegian labour market. This overall finding effectively expands our knowledge of what causes the previously documented ‘ethnic penalties’ experienced by this group in Norway (Hermansen 2013).

However, the remaining rows in Table 2 demonstrate that there are large variations in the experimental results. Separating the results by *gender* suggests that ethnic discrimination is far more prevalent among the fictitious male applicants than among their female counterparts. Among the male pairs of applicants, the majority candidate had a 30.3 per cent chance of receiving a positive response from employers; the minority candidate had only a 17.8 per cent chance. Thus, a Pakistani name reduces the likelihood of being invited to a job interview by 41.3 per cent compared to an equally qualified candidate with a Norwegian name. Among women, the effect of ethnic background is much less pronounced. A Pakistani name reduced the probability of receiving a call back by 16.5 per cent for women, although both call-back gaps are statistically significant ($p < .01$).

The differences in responses between the private and the public *sectors* are even more striking. In the private sector, the probability of receiving a job interview offer for applicants with Pakistani names is reduced by 36.1 per cent compared to applicants with Norwegian names ($p < .01$). In the public sector, the call-back gap between the candidates is small and not significant at all. Furthermore, the last 12 rows in Table 2 document a considerable *occupational* variation. For example, in applications for job openings as drivers and warehouse workers, applicants with Pakistani names had a 57.7 and a 55.6 per cent less chance, respectively, of receiving a call back, while the effects of ethnic background in occupations like pre-school teacher, nurse, and public consultant are small and not significant.

In line with a recent field experiment in the Dutch labour market (Andriessen et al. 2012), there is a tendency for the extent of discrimination to be greater in low-skilled jobs than in jobs requiring higher education. Interestingly, however, the greatest ‘ethnic penalty’ occurs in applications for positions as financial controllers. This occupational category requires at least three years of higher education, indicating that there is no straightforward

relationship between discrimination rates and educational level. Furthermore, the large differences across occupations clearly demonstrate that the overall findings from field experiments should be interpreted with caution, as the occupations included in a sample may have major effects on the discrimination rates derived from the experiment.

Disentangling the effects of gender, sector, and occupation

In a recent paper presenting a correspondence study of gender discrimination in Britain, Riach and Rich (2006) note that the logical imperative of field experiments is to design and match paired résumés in a way that controls for all factors, other than the name, which may affect the rate of job interview offers. Because the fictitious résumés in each pair are identical in terms of human capital characteristics, any systematic preference for either of the candidates is attributable to the name difference, and the data cannot be controlled for more formally, e.g. by regression analysis. Thus, according to Riach and Rich (2006: 6), ‘the scientific challenge in field experiments is careful *ex ante* design; not *ex post* statistical manipulation’.

Still, there is need for more detailed empirical analyses. The numbers in Table 2 do not clarify whether the effect of ethnic background on call-back rates is in fact larger in, for example, the private sector than in the public sector, or mainly an effect of gender or occupational characteristics. Because the fictitious résumés and cover letters from the male pairs of applicants were often sent in response to job openings in male-dominated occupations in the private sector, while the female pairs mainly applied to female-dominated occupations in the public sector, the relative effects of gender, sector, and occupation on the overall results are conflated. Therefore, as a first step, all applications to gender-segregated occupations were removed from the analysis. The *gender-integrated* occupations in the sample consisted of primary school teachers, public consultants, accounting assistants, insurance advisors, information officers, and financial controllers. For these positions, both the fictitious male and female pairs of job candidates applied (cf. Table 1), and the call-back rates between men and women are more directly comparable.

Table 3 *Call-back rates, by ethnic background in gender-integrated occupations. Separate numbers for men and women in the private and the public sectors*

	% Call back			
Sample (n=Job ads)	Majority	Minority	Ratio	Percentage points difference
<i>Both private and public sectors</i>				
Total (n=408)	34.9	23.7	1.47	11.2**
Men (n=233)	28.8	18.4	1.57	10.4**
Women (n=175)	43.4	30.9	1.40	12.5**
<i>Private sector</i>				
Total (n=257)	32.3	17.7	1.82	14.6**
Men (n=156)	31.0	18.4	1.68	12.6**
Women (n=101)	34.9	16.5	2.12	18.4**
<i>Public sector</i>				
Total (n=151)	36.5	33.1	1.10	3.4
Men (n=74)	19.5	16.9	1.15	2.6
Women (n=77)	54.1	50	1.08	4.1

**= $p < .01$

Table 3 shows the call-back rates by ethnic background in gender-integrated occupations. The first row demonstrates that the negative effect of a Pakistani name on call-back rates increases when exploring only this occupational subsample. For the total numbers, the probability of receiving a job interview offer is reduced by 32.1 per cent for applicants with Pakistani names compared to equally qualified applicants with Norwegian names. Separating these numbers by gender, the next two rows demonstrate that although the gender difference is clearly smaller when omitting the gender-segregated occupations from the analysis, a certain pattern of gender difference persists. A Pakistani name reduces the probability of receiving a job interview offer by 36.1 per cent for men and 28.8 per cent for women.

However, separating the results for gender-integrated occupations by sector provides some interesting results. The mid-rows of Table 3 display the results for the private sector. Here, the effect of ethnic background is large and statistically significant for the total number of applications, and the gender differences are actually switched: The probability of receiving a call back for applicants with Pakistani names is reduced by 52 per cent for women and 40 per cent for men. Thus, in contrast to what the overall findings suggest, minority women do not seem to be treated more favourably than minority men when applying for jobs in gender-integrated occupations in the private sector.

In the public sector, the picture is different. Here, the effect of ethnic background is minimal and the call-back gaps by ethnicity are not statistically significant for women or men. Interestingly, however, the female applicant pairs are invited to job interviews in gender-integrated occupations far more often than the male pairs. In fact, minority women receive a call back more than twice as often as majority men.

The results presented in Table 3 suggest that the negative effect of a Pakistani name on the probability of receiving a job interview offer is much larger in gender-integrated occupations in the private sector than in the public sector, and that the gendered effect of ethnic discrimination seems to disappear when separating the results by sector. In order to explore the net effect of ethnic background and sector in gender-integrated occupations, I use a linear probability model on call backs (defined as a binary variable in which 1 equals a call back by employers). In Table 4, Model 1 displays the effect of a Pakistani name on the probability of receiving a job interview offer, controlling for gender, sector, and occupation. Model 2, moreover, tests the findings in Table 3 by accounting for the interaction effects between a Pakistani name and sector while controlling for gender and occupation.

Table 4 *Linear probability of receiving a call back in gender-integrated occupations*

Call back	Model 1	Model 2
Pakistani name	-0.11***	-0.033
Private sector	0.145***	0.207***
Pakistani name*private sector		-0.123*
Male	-0.071*	-0.071*
Insurance advisor	-0.389***	-0.389***
Accounting assistant	-0.419***	-0.419***
Controller	-0.602***	-0.602***
Public consultant	-0.41***	-0.41***
Information officer	-0.61***	-0.61***
Constant	0.687***	0.648***
Number of applications	816	816
R ²	0.17	0.17

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

Note: The reference category is the average call-back rate for female applicants with Norwegian names applying for positions as primary school teachers in the public sector.

In Model 1, the first row shows that when applying for jobs in gender-integrated occupations, the probability of receiving a job interview offer for applicants with Pakistani names is reduced by 11 percentage points compared to applicants with Norwegian names. The second row demonstrates that applicants with Norwegian names in the private sector are 14.5 percentage points more likely to receive a call back than applicants with Pakistani names, controlling for gender and occupation. Finally, the third row shows that male applicants – when controlling for name, sector, and occupation – in general have a call-back probability that is seven percentage points lower than call backs for female applicants.

In Model 2, the first row reports the effect of a Pakistani name on call-back probabilities in the public sector, controlling for gender and occupation. Being a minor and not significant effect, this model supports the finding that ethnic background does not affect call-back rates in the public sector. This is further strengthened by the statistically significant interaction effect for a Pakistani name and private sector, suggesting that applicants with Pakistani names are experiencing lower call-back probabilities (-12.3 percentage points) in gender-integrated occupations in the private sector, irrespective of gender and occupation.

Of course, these numbers are based on a relatively small sample of occupations, and one should be cautious in drawing firm conclusions about how job candidates are received when applying for positions in the private and the public sectors in general. Furthermore, the small and statistically not significant call-back gaps in the public sector do not necessarily imply an absence of discrimination; they may reflect that discrimination is more widespread in promotion than in recruitment, as suggested by previous research (Byron 2010). However, a recent field experiment in the Swedish labour market (Ahmed et al. 2013) reports that discrimination is more prevalent in the private sector, indicating that discrimination rates may indeed vary between the sectors. It is also worth remembering that a female workforce dominates the public sector in Norway. The fact that the female pairs of fictitious job applicants received job interview offers far more often than the male pairs when applying for the same type of public position may suggest a general employer preference for women in the public sector – regardless of ethnic background.

Concluding discussion

Ethnic inequalities in European labour markets persist despite the rapid development of anti-discrimination legislation, political integration efforts, and impressive educational achievements among the second generation in many countries. Yet the extent to which employment discrimination may account for the disadvantages experienced by children of immigrants is notoriously difficult to assess. A number of traditional quantitative studies have documented that the second generation in Europe does face ‘ethnic penalties’ when compared to equally qualified majority peers, particularly at the entrance to the labour market (see review in Heath et al. 2008). Nevertheless, these studies cannot rule out alternative explanations for the observed disadvantages; for example, omitted variables or ethnic differences in the access to social networks may explain the disparities in employment reported.

Presenting the main findings from the first field experiment conducted in the Norwegian labour market, this article documents that discrimination is indeed a relevant explanation for ethnic inequality. By sending 900 pairs of fictitious résumés and cover letters, with equal merits, but with names signalling different ethnic backgrounds, this study has demonstrated that children of Pakistani immigrants have a 25 per cent lower probability of receiving a job interview offer compared to equally qualified applicants with Norwegian names. This complements the findings from previous quantitative studies (Evensen 2009; Hermansen 2013), suggesting that employment discrimination indeed is an important contributor to the barriers facing the second generation at the entrance to the labour market in Norway.

This study sheds light on the employment prospects for young individuals with Pakistani names in the particular Norwegian context, and cannot easily be transferred to other groups or compared to other countries. A Pakistani name may, in the eyes of employers, signal that a job candidate belongs to a certain ethnic group, but the name could also signal, for example, a more general Muslim background. If this is the case, what is measured here is a reluctance to hire young Muslims, and the employer preference for applicants with Norwegian names may be more pronounced when compared to applicants with Pakistani or Muslim names than when compared to other ethnic or religious groups. However, as some former field experiments have reported considerable differences between groups while others have not, comparing call-back gaps between native Norwegians and only one minority group makes it impossible to predict the differences in discrimination rates among other groups in the Norwegian labour market. Consequently, this study cannot determine whether children of Pakistani immigrants are the subject of particularly high levels of discrimination, or whether it is just a foreign name – no matter what ethnic or religious group it signals – which creates the barrier to employment.

The empirical analyses suggested that the effect of ethnic background on employment probabilities were large and statistically significant in gender-integrated occupations in the private sector, but small and not significant in the public sector. This is interesting for several reasons. First, recent studies have suggested that minority men are more exposed to employment discrimination than are women (e.g. Andriessen et al. 2012; Bursell 2012). At first glance, the results of this study support these findings. However, the gender differences disappear when separating gender-integrated occupations by sector. In gender-integrated occupations in the private sector, the gender difference is even reversed, indicating that women with a minority background are treated less favourably than minority men in the

private sector. These results suggest that the interaction of gender, ethnicity, and sector should be scrutinised more carefully in future field experiments.

Second, the public/private sector divide is interesting because the public sector in Norway is large compared to most European countries – more than 30 per cent of the total workforce is employed in public companies – and it is well known for the relatively high levels of formal education required for permanent employment (Statistics Norway 2009a). Because the fictitious job candidates used in this experiment were always given the qualifications required, the small and not significant call-back gaps in applications to public positions indicate that the public sector may serve as an important employment arena for the second generation in the years to come. Furthermore, it serves as a reminder that the size of the public sector may prove important in determining the level of discrimination experienced by children of immigrants in different countries, indicating that sector differences should receive more attention in comparative research on integration and discrimination.

Finally, highlighting the large public sector as a distinctive feature of the Norwegian labour market is relevant to the literature on children of immigrants in Europe, as it relates to the on-going discussion about the relevance of integration contexts. Considering the differences in education systems, labour market regulations, and welfare state arrangements in European countries, a major question concerns the extent to which institutional contexts influence the trajectories of integration (Crul et al. 2012). Previous research has pointed to Sweden and Norway as examples of countries in which access to labour market opportunities has proved difficult for children of immigrants, but where there are few indications of cumulative disadvantage once employment is secured (Heath and Cheung 2007; Hermansen 2013; Reisel et al. 2012). Future research should consider the opportunities for conducting comparative field experiments to explore the link between the welfare state and integration regimes and the modes of incorporation experienced by the second generation in Europe.

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