DAMNED IF YOU DO, DAMNED IF YOU DON'T? EXPERIMENTAL EVIDENCE FROM GERMANY ON HIRING DISCRIMINATION AGAINST MOTHERS WITH SHORT FAMILY LEAVE

Lena Hipp

WZB Berlin Social Science Center & University of Potsdam

hipp@wzb.eu

ABSTRACT

Can women overcome motherhood penalties by quickly returning to their jobs after childbirth? Do employers discriminate against fathers who take extended family leave? To answer these questions, I exploit some unique features of Germany's parental leave and job application system. My field experiment shows that mothers who only took the mandatory leave of two months are around 40 percent less likely to be invited to a job interview than mothers who stayed home for a year. There is, however, no difference between fathers who took short vs. long periods of leave. The supplementary laboratory experiment provides empirical evidence supporting my theoretical claim that women's gender norm violations are judged more negatively than men's. Employers value different traits in fathers who take short periods of family leave from those who take long periods of leave, but discriminate against mothers who "lean in" and "act like men" for violating prevailing gender norms by only taking short leave.

Keywords: gender, parenthood, family leave, discrimination, experiment

Acknowledgements: This research was funded by a grant from the German Ministry of Education and Research (Grant # 01UG1206The Social Psychology of Care Work). I am indebted to Christina Botros, Nora Schneck, Jan Eilrich, Sophia Hess, Jakob Simonson, Marcel Lumkowsky, Friederike Molitor, and Ferdinand Kriesche for their thorough work in collecting the data, to Shelley Correll, Stephen Bernard, and In Paik for sharing the materials from their 2007 study with me, to Ruth Dittmann for her advice on experimental design, as well as to Boeckmann, Lynn Prince Cooke, David Pedulla, Stephen Bernard, David Brady, and the members of the WZB writing workshop for providing me with feedback on earlier versions of this paper.

Sociological research has repeatedly shown that parenthood is a key driver of the persistent labor market inequalities between men and women. All else being equal, mothers across a large number of occupations and countries are less likely to be considered for a job interview than childless women (e.g., Baert et al. 2018 for Flanders; Bygren, Erlandsson and Gähler 2017 for Sweden; Correll, Benard and Paik 2007 for the United States; González, Cortina and Rodríguez 2019 for Spain; Hipp 2020 for Germany). Mothers in most countries also tend to earn less than comparable fathers and less than both childless men and women (e.g., Budig, Misra and Boeckmann 2012; 2016 for cross-country comparisons). For men, in contrast, having children is not detrimental. Fathers do not experience discrimination when applying for jobs (e.g., Bygren, Erlandsson and Gähler 2017 for Sweden; Correll, Benard and Paik 2007 for the US; González, Cortina and Rodríguez 2019 for Spain; Hipp 2020 for Germany) and even tend to out-earn comparable childless men (e.g., Killewald 2012 for the US; Mari 2020 for Germany and the UK).

Employers' gendered treatment of parents may be changing, however, with the rise in women's labor force participation and the greater value placed on an equal division of paid and unpaid work by younger generations (e.g., Pedulla and Thébaud 2015 for the US). When mothers are not the primary caregivers, they should no longer experience labor market disadvantages—or should at least experience these disadvantages to a lesser extent. And as fathers take on an increased role in childcare, they may begin to experience the same disadvantages as mothers have, and may be penalized for violating the male breadwinner norm.

This paper investigates how nontraditional distributions of childcare responsibilities affect mothers' and fathers' likelihood of getting a job. What happens when men and women assume nontraditional gender roles after the birth of a child? Does a quick return to paid work after childbirth allow women to overcome motherhood penalties? Do fathers experience employer discrimination when they move away from the traditional breadwinner role by taking a longer than average period of family leave? To answer these questions, I conducted a field and a laboratory experiment in which I used the length of family leave to signal either traditional or nontraditional parental engagement in childcare.

Both experiments were conducted in Germany, which—for both theoretical and practical reasons—is an ideal setting for examining how changes in the traditional division of labor affect mothers' and fathers' likelihood of getting a job. First, despite some changes in recent

decades, the division of paid and unpaid work has remained very gendered (e.g., Blome 2017), and women incur comparatively high motherhood wage penalties (e.g., Mari and Cutuli 2020). In this context, gender-atypical childcare arrangements may represent a major violation of gender norms. Second, Germany's relatively generous family leave policy encourages both parents to take time off after childbirth, and fathers' leave take-up has increased considerably over the past decade (BMFSFJ 2016). Third, job applications in Germany commonly contain a wide range of private information, including marital status, number of children, and information on the duration of and reasons for job interruptions, which allows me to unobtrusively manipulate the duration of family leave in the application materials.

To test how employers react to applicants who hold nontraditional childcare roles, I submitted applications for a pair of comparable male or female candidates ($N = 718$) for real job openings and kept a record of all invitations received to interview each applicant. Both applicants were parents but differed in the length of leave they had taken after their child was born (three years prior). The findings from this field experiment show that for fathers, the likelihood of being invited to a job interview was unaffected by the length of family leave, while mothers who took a short period of family leave (two months) were almost 40 percent less likely to be invited to a job interview than mothers who took a long period of family leave (12 months).

To explore the mechanisms that underlie this finding, I conducted a laboratory study in which student raters evaluated the same application materials that were sent out in the field study ($N = 444$). The results from the laboratory experiment confirmed the findings on hiring preferences from the field experiment and provide further indications that violations of prevailing gender norms affect mothers' but not fathers' likelihood of being invited to a job interview. Mothers who took a short period of leave were not perceived to be more competent and more committed than mothers who took long leave, but rather to have poorer parental qualities, to be less warm, less communal, less interpersonally appealing, and more hostile than mothers who took a long period of leave. There were no differences between fathers who took a short vs. long leave with regard to perceived competence and commitment. Fathers who took longer periods of leave were perceived to be more likeable and better parents than fathers who took shorter periods of leave, but, at the same time, they were perceived to be less agentic. These findings suggest that being both a good worker and a good parent is possible for men but not

for women. Mothers can only do it wrong—they are punished either for being a poor worker or for being a poor parent.

This study contributes to the existing literature in several ways. First, understanding how different degrees of childcare involvement affect men's and women's labor market chances is of great importance in light of ongoing debates about paid family leave for new parents. To my knowledge, no other study to date has experimentally examined how parents differ in their likelihood of getting a job by the length of leave taken. For the United States, Weisshaar (2018) used data collected in a survey experiment and an audit study to compare how losing a job vs. leaving work for family care affected men's and women's likelihood of re-entering the labor market, but her study did not examine differences in the length of leave or the long-term effects of leave on men's and women's labor market chances. In a laboratory study for Germany, Fleischmann and Sieverding (2015) examined how fathers with different lengths of leave were assessed by student evaluators, but they did not study women or collect data from actual employers. The present study seeks to provide empirical answers that can fill this gap.

Second, this is the first study to disentangle and test different explanations for discrimination related to nontraditional childcare roles outside of laboratory studies with student raters. Laboratory experiments from the United States have shown that mothers are perceived as less socially oriented and likeable when they signal a strong attachment to the labor market and, as a result, are subject to normative discrimination (Benard and Correll 2010; Okimoto and Heilman 2012). However, the degree to which both mothers and fathers experience discrimination for normative reasons has not yet been assessed with real-world data.

Third, the findings of my study advance our theoretical understanding of the motives for discrimination. The finding that mothers who took short periods of leave are less likely to be invited to a job interview and are not perceived to be more committed to their careers or more competent than mothers who took long periods of leave suggests that employer discrimination may not only arise from productivity-related considerations but also from normative considerations. The finding that fathers are not penalized for having taken a long leave suggests that employers apply different standards to different status groups (e.g., (Foschi 2000)). In the context of paid work, high-status actors—a group to which fathers belong (Ridgeway and Correll 2004)—seem to generally have more leeway in their behavior than low-status actors, namely women and mothers.

Fourth, this study improves our understanding of the causal mechanisms behind the unequal effects of having children on men's and women's labor market outcomes. In particular, my findings challenge the widespread belief that women can avoid motherhood penalties if they spend as little time as possible at home after childbirth. Essentially, women with children face a Catch-22 situation: If they stay home with their children, they experience labor market disadvantages due to losses in human capital and work experience. Yet if they try to follow the male-dominated "ideal worker" norm by returning to work quickly, they are also penalized (Williams, Blair-Loy and Berdahl 2013b). My findings also challenge the idea that fathers face career repercussions when they take time off from work to become more involved in childcare—an assumption that a number of previous studies have tested based on observational data, but without being able to establish a causal relationship (e.g., Coltrane et al. 2013 for the United States).

BACKGROUND: GENDERED LABOR MARKET EFFECTS OF PARENTHOOD

Scholarship on gender and work has repeatedly shown that parenthood has different effects on men's and women's hiring chances, their career advancement, and their wages. A series of field experiments found that mothers have greater difficulties in finding jobs than childless women (Baert et al. 2018; Bygren, Erlandsson and Gähler 2017; Correll, Benard and Paik 2007; González, Cortina and Rodríguez 2019; Hipp 2020).¹ Both laboratory and qualitative studies, moreover, have found that mothers tend to be considered less competent and less suitable for promotions (see Correll, Benard and Paik 2007; Firth 1982 as examples for experimental studies for the US and the UK; Glass and Fodor 2017 as an example of qualitative evidence for Hungary). They hence also tend to earn lower wages than both childless women and men (Budig, Misra and Boeckmann 2012; 2016 for a cross-sectional assessment of 22 countries; for longitudinal evidence see Cooke 2014 on the UK, the US, and Australia; England et al. 2016 on the US; Kleven, Landais and Søgaaard 2018 on Denmark; Mari and Cutuli 2020 on Germany; Oesch, Lipps and McDonald 2017 on Switzerland).

¹ While all of these studies found that mothers tended to be less likely to receive a callback or an interview invitation than childless women, differences in positive employer reactions varied considerably by country (e.g., from small or even no penalties in Sweden to large penalties in Germany and the United States), type of job (e.g., less discrimination in highly qualified jobs), and the number of children (e.g., less discrimination against mothers of two children in Flanders, the Flemish-speaking part of Belgium).

Parenthood, by contrast, is not necessarily harmful to men's careers. In the United States, Germany, Sweden, and Spain, for example, fathers are as likely as nonfathers to be invited to a job interview (Bygren, Erlandsson and Gähler 2017; Correll, Benard and Paik 2007; González, Cortina and Rodríguez 2019; Hipp 2020). Becoming a father, moreover, does not decrease men's wages; if anything, fathers tend to earn more than childless men—although this relationship may not be causal (e.g., Cooke 2014 for high-earning men in the US and the UK; Killewald 2012 for the US; Kleven, Landais and Sogaard 2018 for Denmark; Mari 2020 for Germany and the UK).

Common explanations for these gendered effects of parenthood relate to the fact that motherhood tends to go hand in hand with employment interruptions, part-time work, and self-selection into family-friendly working environments—all of which can lead to skill deterioration and hinder women from gaining valuable work experience, and may also be interpreted as a sign of lowered professional commitment (e.g., Gangl and Ziefle 2009 or Kmec 2011, who provides survey-based evidence from the United States that mothers, fathers, and nonparents do in fact not differ in pro-work behaviors).

However, even when differences in qualifications, work experience, and other factors are accounted for, mothers still experience labor market disadvantages due to employer discrimination. In their seminal paper on motherhood penalties in hiring in the United States, Correll, Benard and Paik (2007) showed that even student raters had biased perceptions of mothers' competence and effort when asked to compare job applications of parents and nonparents: Raters perceived mothers as prioritizing the needs of their children over those of their employers and therefore shied away from suggesting them for hiring and promotions. Findings from this and other laboratory experiments (e.g., Kmec, Huffman and Penner 2013 also for the United States) are hence in line with findings from qualitative studies and factorial survey experiments with employers showing that mothers tend to be evaluated more harshly than other groups of employees (Fernandez-Lozano et al. 2019 on manager promotion in Spain; Glass and Fodor 2017 on the finance and business sector in Hungary; Halley et al. 2018 on physicians in the United States; Jacobs and Gerson 2015 on the evaluation of mothers and fathers in different family constellations by the general population in the United States).

One strategy women might adopt in an attempt to reduce these penalties and disadvantages is to signal strong commitment to paid work and minimize their time out of the labor

market due to childcare responsibilities. Changes in mothers' roles as the main caregiver may, in turn, also affect fathers. If childcare responsibilities are not fully outsourced to relatives or professional providers, mothers' increased engagement in paid work will require greater childcare involvement from their partners. Trends in many advanced economies bear this out; the number of fathers who take family leave has indeed been increasing in recent years (OECD 2018), and young men today state that they want to be more involved in family life (Bernhardt, Hipp and Allmendinger 2016; Joshi 2021 for Germany; Pedulla and Thébaud 2015 for the US).

What are the professional consequences of such changes in traditional childcare roles? The existing research on active fatherhood has yielded ambiguous results. Some studies have indeed identified negative effects. In a laboratory study in the United States, Wayne and Cordeiro (2003) found that fathers who took leave to care for their children were perceived to be less committed to their work than fathers who did not take leave. In another laboratory study in the Netherlands, Vinkenburg et al. (2012) showed that men who shared childcare responsibilities with their partners were appraised negatively. Similarly, in a series of field and survey experiments, Weisshaar (2018; 2021) found that, in the United States, "opt-out" fathers had considerably lower chances of re-entering the labor market than men who had been employed continuously or had lost their jobs. Observational studies from Europe, moreover, report wage penalties for fathers who took family leave (Albrecht, Thoursie and Vroman 2015 for Sweden; Rege and Solli 2013 for Norway; Theunissen et al. 2011 for Belgium). Likewise, in an analysis of NLSY data, Coltrane et al. (2013) found wage penalties for fathers who were unemployed due to childcare responsibilities.

Other studies, by contrast, have found either no effect or a beneficial effect on fathers from greater involvement in family life. Fleischmann and Sieverding (2015), who studied the effects of family leave on student raters' perceptions of fathers in Germany, found no differences between fathers who had taken a long vs. short period of leave in the likelihood of being recommended for hiring. Likewise, in an analysis of German panel data, Bünning (2016) found that fathers did not encounter wage penalties for taking family leave. In a series of survey and laboratory experiments, Denny (2013) and Krstic and Hideg (2019) even identified positive effects of childcare involvement and leave take-up on evaluations of fathers in the United States among different rater populations. Similarly, in an analysis of European panel data, Koslowski

(2011) found that fathers who reduced their working hours to spend more time with their children earned higher hourly wages than fathers who did not.

For mothers, little empirical evidence on the effects of assuming nontraditional childcare roles on labor market outcomes currently exists. A laboratory study with U.S. undergraduate students by Benard and Correll (2010) provides some hints that mothers may not necessarily benefit from demonstrating high competence and commitment to paid work. They found that women could not entirely offset the disadvantages that arose due to motherhood by demonstrating professional competence and commitment, as female student raters in particular evaluated them less favorably on personality characteristics compared to fathers and childless women. Aranda and Glick (2014), who conducted a laboratory experiment on business students in Spain, by contrast, found that fictitious job candidates who expressed a strong commitment to paid work were more likely to receive hiring recommendations and to have better opportunities for professional advancement than candidates who were described to be family-oriented, and that this effect was stronger for female than male applicants.

THEORETICAL BACKGROUND: DISCRIMINATION DUE TO PRODUCTIVITY EXPECTATIONS AND GENDERED CAREGIVING NORMS

What mechanisms might be driving employers' (gendered) reactions to nontraditional childcare involvement? Drawing on different types of discrimination theories, I propose two mechanisms that can explain employers' potentially adverse reactions to signals of men's and women's nontraditional caregiving behaviors. First, employers may penalize both mothers and fathers for taking longer leave for childcare purposes, because long leaves may signal low productivity (*statistical and status-based accounts of discrimination*). Men in particular may suffer from this kind of "intensive caregiving signal, as they are much less likely than women to take long periods of leave." Second, employers may penalize fathers for taking longer and mothers for taking shorter periods of leave, because any adoption of non-traditional family roles may violate prevailing gender norms and contradict the gendered image of a "good parent" (*preference-based and normative accounts of discrimination*).

Discrimination Due to Productivity Expectations: Statistical and Status-Based Discrimination Theory

Theories of statistical discrimination (Arrow 1973; Phelps 1972) and status-based discrimination (Correll and Benard 2006; Correll, Benard and Paik 2007) suggest that both mothers and fathers who assume more extensive childcare responsibilities will face discrimination because employers expect them to be less productive. Theories of statistical discrimination posit that since it is difficult or costly for employers to obtain pre-hire data on a potential employee's future productivity, they base their hiring decisions on the information available about the mean performance (or the variance in performance) of the demographic group to which the applicant belongs. Applicants experience discrimination when the mean performance of “their” group is lower (or the variance is larger) than that of the comparison group. This strategy may reduce employers' risk of hiring a low-performing worker, and can therefore be considered economically efficient and rational. Employers may also assume that both mothers and fathers with more childcare duties are less productive (or have greater variance in productivity) on average than parents with fewer childcare duties. As a result, employers may perceive these parents to be “risky hires” and may be less likely to offer them a job.²

Theories of status-based discrimination challenge the assumption that employers base their hiring and promotion decisions on accurate information (Tilcsik 2021 for a theoretical and empirical critique of statistical discrimination theory). They argue that discrimination occurs as the consequence of cognitive biases rather than a lack of information (Benard and Correll 2010; Weisshaar 2021 for an empirical demonstration that informational and cognitive biases may differ in relevance for different demographic groups). Drawing on status characteristics theory, theories of status-based discrimination assume that employers rely on biased priors when evaluating workers and therefore systematically discriminate against workers who belong to devalued status groups. Nominal but socially meaningful distinctions—such as being male vs. female or being the primary caregiver vs. being the primary breadwinner—are associated with widely held cultural beliefs about performance expectations and status worthiness. Depending on the context or the task at hand, such characteristics and roles become not only salient but also take on a status value (Benard, Paik and Correll 2008; Correll and Benard 2006). In the context of paid work, being the primary caregiver and being female both have been found to be devalued status characteristics (Ridgeway and Correll 2004). Although employers may perceive mothers

² For examples of studies drawing on statistical discrimination to explain unequal treatment between different groups, see Bygren, Erlandsson and Gähler (2017) for working people, and Rissing and Castilla (2014) for visa applicants.

and fathers to be more competent at care and nurturing tasks than nonparents, these prototypical female skills and competencies are of lower value in the context of paid work than skills culturally ascribed to men (see Benard and Correll 2010 on laboratory evidence on such biased standards). In consequence, employers may prefer to hire applicants who signal lower involvement in childcare.

Theories of statistical and status-based discrimination hence both suggest that employers discriminate against mothers and fathers who take long periods of leave. However, it should be noted that the two theories make different assumptions about employers' underlying motives for these behaviors. Theories of statistical discrimination assume rational motives for preferential treatment of certain groups, whereas theories of status-based discrimination attribute preferential treatment to unconscious biases. As a result, the two theories also yield slightly different predictions regarding the differing size of caregiver penalties by gender.

Following the logic of statistical discrimination theories, there should be no differences in caregiver penalties based on the job applicant's gender—or, if anything, there should potentially be larger differences between fathers with more intensive vs. less intensive childcare commitments than between mothers with different childcare commitments. The reason for this is the following: Employers may assume that mothers generally hold more of the responsibility for childcare in families and are therefore less productive workers than fathers. When hiring fathers, employers may therefore be less concerned about low productivity—even compared to female applicants who signal low childcare commitments. Employers, however, may be more concerned about fathers who signal high childcare commitments (as indicated, for instance, by having taken long family leave), since this is a major deviation from the norm in most countries (Koslowski 2021). Having taken a long as opposed to short leave should hence be evaluated either as an equally strong signal of intensive childcare responsibilities and low productivity for mothers and fathers, or as an even more negative signal for fathers than for mothers. These two processes may therefore lead to larger penalties for fathers with intensive family commitments than mothers.³

³ This argument can also be made with reference to the variance component of statistical discrimination theory: Employers may have more accurate information on men with low family involvement than on women with low family involvement, as well as more accurate information on women with high family involvement than on men with high family involvement. They may therefore shy away from hiring members of the group they have had less experience with in the past, that is, fathers with high family involvement and mothers with low family

Following the logic of status-based discrimination, by contrast, the reverse should be the case. That is, the penalty for intensive family commitments should be larger for mothers than fathers. According to status characteristics theory, although signaling greater childcare involvement will result in lower social status for both fathers and mothers (Ridgeway and Correll 2004), fathers who take long leave may experience smaller penalties than mothers who take long leave. This is because, for women, the decline in status resulting from care responsibilities combines with women's already lower status in professional settings. For men, by contrast, the status decline resulting from greater childcare involvement will be outweighed by men's higher status in professional settings. This should lead to lower penalties among men than among women (ibid.). Men's professional competence and commitment may hence be judged less harshly no matter what they do—simply because of their status advantage in the labor market.

Discrimination Due to Gendered Caregiving Norms: Taste-Based and Normative Discrimination Theory

Theories of taste-based discrimination (Becker 1957) and normative discrimination (Benard and Correll 2010; Benard, Paik and Correll 2008; Correll, Benard and Paik 2007) suggest that mothers and fathers who assume nontraditional childcare roles may face discrimination because employers disapprove of or dislike employees who violate gender role norms. According to this line of thought, discrimination imposes costs on the employer and is hence economically inefficient (e.g., Becker 1957). Theories of taste-based discrimination suggest that employers—or the clients they serve—may simply prefer members of certain groups over others. That is, employers may tend to offer jobs to applicants from one group but not another regardless of the candidates' aptitude for the job. The origins of these preferences and aversions are not specified in Becker's original formulation of the theory.

Theories of normative discrimination (Benard and Correll 2010), which can be thought of as a specific form of taste-based discrimination, attribute discrimination against certain groups to prevalent cultural norms. Employers, for instance, may discriminate against mothers and fathers for engaging in gender-nonconforming behaviors (see also the psychological literature on “backlashes”, e.g., Rudman and Fairchild 2004; Rudman and Phelan 2008). Employers

involvement. On average, these uncertainties may lead to higher penalties for fathers or they may cancel each other out and hence lead to similar differences between mothers and fathers with short and long periods of leave.

may judge women, who have traditionally assumed the primary caregiving role, not only on the basis of their professional skills and work commitment but also their qualities as mothers (Acker 1990; Blair-Loy 2004; Rudman and Mescher 2013). In light of the prevailing norms of “intensive mothering” (Ennis 2014; Hays 1996; Ishizuka 2019), women may be applauded when they conform to the norm of the caring mother and may be penalized when they do not (Benard and Correll 2010; Cech and Blair-Loy 2014; Stone 2007; Stone and Hernandez 2013; Williams, Blair-Loy and Berdahl 2013a). Likewise, men may be judged according to gendered expectations about how a man “should” behave. In this sense, being responsible for a family’s material well-being and having a strong career orientation may be taken as a signal of masculinity and being a “real man” (Cha and Thébaud 2009; Connell 1995; Townsend 2002; Vandello et al. 2008). Violating this ideal by engaging in gender-nonconforming behaviors may therefore be detrimental for men.

EMPIRICAL PREDICTIONS: EMPLOYER DISCRIMINATION AND NONTRADITIONAL FAMILY ROLES IN GERMANY

How can we test these theoretical accounts empirically? The length of family leave—that is, the legally granted period of time, either paid or unpaid, that parents can take after the birth or the adoption of a child—is a good proxy for parental childcare involvement. Taking the maximum amount of family leave that is remunerated or legally guaranteed indicates higher childcare involvement and lower commitment to paid work, whereas taking the minimum amount (or no leave) indicates lower family involvement and higher commitment to paid work.

The German Context

In Germany, mothers and fathers in two-parent families are entitled to share 14 months of paid family leave per child, with the maximum paid leave that can be taken by either of the two parents being 12 months (e.g., Gangl and Ziefle 2015). Effectively, this means that the total length of paid family leave is extended from 12 to 14 months if both parents take at least two months of family leave each. Since the establishment of this Swedish-style system in 2007, mothers of young children in Germany have returned more quickly to the labor market, and the proportion of fathers taking family leave has increased considerably, from 3.5 percent in 2006 to over 33 percent in 2014 (BMFSFJ 2016). The distribution of the total paid leave available

has nonetheless remained very gendered. Mothers typically take 12 months of paid family leave while fathers only take the two months that would otherwise be lost (ibid.).

Although public opinion has become more favorable toward working mothers, and publicly-provided childcare has been expanded in recent years (Blome 2017), Germany is still characterized by a strong prevalence of “intensive mothering” and “male breadwinner” norms (e.g., Charles and Cech 2010). The division of unpaid work in couples in Germany still follows traditional patterns (Kühhirt 2012), and qualitative studies on fathers’ parental leave use show that fathers consider leave to be a “favor from the employer” rather than the legal entitlement it actually is (Samtleben et al. 2019). Moreover, mothers in Germany continue to suffer a comparatively high wage penalty (e.g., Gangl and Ziefle 2009) and are less likely to be invited to a job interview than nonmothers (Hipp 2020). The negative attitudes towards mothers who pursue careers are also illustrated anecdotally by the continued use of the disparaging term *Rabenmutter* (“raven mother”) to vilify mothers who seem to put their own needs above those of their children (Collins 2019; Klabunde and Korn 2010). These features make Germany an interesting case for examining the effects of nontraditional childcare roles on mothers’ and fathers’ hiring chances.

Empirical Predictions

In the German context, the theoretical considerations described above lead to several empirical predictions as to how employers evaluate signals of varying degrees of caregiving involvement for mothers and fathers. Theories of statistical and status-based discrimination suggest employer discrimination against both mothers and fathers who take long family leave. This is likely to occur because employers perceive parents with long leave to be primary caregivers and hence expect them to be less productive and less committed than parents who take short leave. Parents who have taken a long period of leave, moreover, may take an equally long period of parental leave if they have another child, which may further reduce productivity expectations. Hypothesis 1 can hence be formulated as follows: *Employers prefer fathers and mothers who have taken short family leave to fathers and mothers who have taken long family leave.*

To assess whether discrimination related to productivity expectations can be explained by statistical or status-based discrimination, we need to compare differences in employer

treatment of mothers and fathers. Theories of statistical discrimination predict no difference in penalties for longer leave by gender—or potentially even greater differences between men with long vs. short parental leaves than between women with long vs. short leaves, as employers have more accurate priors on men with short leaves (the category to which the supposedly more productive workers belong) and women with long parental leave (the category to which the supposedly less productive workers belong). Quite the opposite may apply according to theories of status-based discrimination, which suggest that employers discriminate more against mothers with long leave than against fathers with long leave. This is because being female and being the primary caregiver are two devalued status characteristics in the context of paid work.

Theories of taste-based and normative discrimination, by contrast, predict employer discrimination against fathers with long leave and mothers with short leave. When employers discriminate based on taste or normative judgments, their decision not to hire certain groups is not because of their expectations about these workers' productivity but because they disapprove of certain characteristics or behaviors of these groups. Fathers who have taken long leave and mothers who have taken short leave violate prevailing gender norms and stereotypes. Being an active caregiver is tightly linked to femininity. Using extended leave to take on a more active role in caregiving therefore contradicts masculinity norms. Employers may therefore perceive fathers with long parental leave as less manly and less agentic than fathers with short leave, and they may perceive mothers with short leave as less warm, less communal, and less likeable than mothers with long leave. Hypothesis 2 can hence be formulated as follows: *Employers prefer fathers who have taken short family leave to fathers who have taken long family leave but mothers who have taken long family leave to mothers who have taken short family leave.*

In summary, theories of statistical discrimination predict similarly large penalties for longer leave for both men and women, or potentially larger penalties for fathers than for mothers.⁴ Theories of status-based discrimination also predict penalties for parents with longer leave, but these penalties may potentially be larger for mothers than for fathers. Theories of normative

⁴ The predictions for women according to statistical/status-based discrimination vary from the predictions based on taste-based/normative discrimination. This means that in this study, in contrast to studies focusing on other characteristics (e.g., race or gender), no additional variation in other productivity-relevant characteristics needs to be modified to investigate which type of discrimination is in place when differences between mothers with long and short leaves are observed (see Neumark 2012 for examples on this issue)

discrimination predict that the length of the leave affects the hiring chances of mothers and fathers in opposite ways. While long leaves are detrimental to fathers' hiring chances, it is short leaves that are detrimental to mothers. Table 1 summarizes these empirical predictions and the underlying theoretical accounts.

Table 1: Overview of different discrimination theories and their empirical predictions for employer preferences regarding mothers and fathers with short vs. long leaves

Reason for discrimination		Empirical predictions of employer preferences
Productivity-related explanations		
Statistical discrimination	Lower productivity/greater variance in productivity of primary caregivers	Preference for short leave-takers; potentially larger differences in invitation rates for fathers than mothers, because of greater variance in productivity among parents with gender-atypical leave length
Status-based discrimination	Harsher evaluation standards for devalued status groups, i.e., primary caregivers, particularly women	Preference for short leave-takers; potentially larger differences in invitation rates for mothers than fathers, because being female is an additional devalued status characteristic in the workplace
Preference-based explanations		
Taste-based/normative discrimination	Dislike of gender norm violations	Preference for fathers with short leaves and mothers with long leaves due to prevailing gender norms

EXPERIMENTAL DESIGN

To test these hypotheses, I conducted a field and a laboratory experiment. In the field experiment, I sought to examine the extent to which mothers and fathers with stronger vs. weaker family involvement experienced employer discrimination when applying for “real” jobs. With the laboratory experiment, I sought to uncover the underlying mechanisms of potential discrimination against parents with different degrees of family involvement. Both experiments employed a 2-by-2 within-subject factorial design. In the field experiment, applications from either two fictitious female or two fictitious male job seekers were sent in response to actual job advertisements, and in the laboratory study, student subjects were asked to rate the very same application materials (again for either two female or two male applicants). Both of the fictitious applicants were parents of a three-year-old child; they differed with regards to the length of family leave they took but were otherwise comparable. Because of the wide range of

information included in job applications in Germany, the duration of family leave could be easily and explicitly incorporated into the job applicants' CVs.

Selection of a Gender-Balanced Occupation of Medium Status

The application materials used in both studies were designed for the position of an event manager. This choice was guided by several considerations. First, in Germany, event management is considered to be a medium-status occupation in which men and women are fairly similarly represented (Wünsch 2008). This minimizes the risk of occupational gender compositions driving potential differences in discrimination. Several studies have shown that labor market discrimination against women is highest in high-status occupations (Busch and Holst 2011; Cha 2013; Glick and Fiske 2007; Maume 1999). Moreover, depending on the degree to which jobs are either male- or female-dominated, long family leave may be uncommon—particularly among fathers—and therefore conspicuous (Geisler and Kreyenfeld 2019; Pfahl and Reuyß 2009).

Second, event managers work in various sectors (e.g., hospitality, banking, insurance, leisure, public service, etc.) and in organizations of different sizes (Wünsch 2008). This makes it likely that the findings of this study will be more generalizable than if the occupation were limited to a few isolated sectors or organization types.

Third, the tasks and activities that event managers perform (i.e., planning and organizing events) are similar across different sectors and organization types. This makes it easier to produce application materials that are suitable for different types of job advertisements. Materials do not have to be tailored to particular job requirements, which helps to streamline data collection and increases the number of applications that can be sent out. Moreover, some of the task and skill requirements in event management tend to be seen as “typically male,” whereas others are seen as “typically female.” For instance, in the preparatory interviews for the study, event managers from different organizations (an event management agency, a marketing firm, and a hotel) stressed that good event managers have to be available to clients, work additional hours around events, calculate and negotiate offers, while also being “caring” toward their clients.

Fourth, the number of job openings for event managers advertised per week on the two most widely used job search websites in Germany (monster.de and stepstone.de) is relatively low (usually between 6 and 10 per week). Therefore, submitting applications for all suitable

jobs allows us to interpret the differences in invitation rates between the two treatment groups in substantial terms. In other words, if members of one group are more likely to be invited to job interviews than the members of the other group after applying for all available event manager jobs in a given time period, the group that experienced discrimination cannot compensate by sending out more applications. Finally, the fact that the tasks and job requirements of event managers are easily understood by laypersons made it possible for student subjects in the lab to evaluate the fictitious job applicants (see Aronson, Brewer and Carlsmith 1985; Paluck and Shafir 2017).

Experimental Materials and Treatment

The application materials used in the field and the laboratory experiment consisted of a cover letter, a CV, and a reference letter from the current employer. To create realistic and suitable applications, the CVs were modeled on those of real event managers found on professional network platforms. Both applicants stated that they were married and had a child and provided their date of birth in the header of the CV, which signaled that the applicant was in a stable relationship with a different-sex partner (same-sex marriages were only legalized in Germany 2017, after the data collection was finished). Prominent placement of this type of private, personal information on job applications is common practice in Germany and does not raise suspicion. Likewise, it is common in Germany for job applicants to list periods of parental leave in their CV. I therefore integrated the information on parental leave of either two or 12 months into the CVs. Two months of family leave is the typical leave duration for fathers (if they take leave at all).⁵ For mothers, by contrast, the typical leave duration is 12 months.⁶ By the time the fictitious candidates applied for the job, it had been approximately three years since they had taken family leave. This, in turn, meant that they might have a second child in the near future,

⁵ As more than 65 percent of the fathers of newborn children in Germany did not take any family leave at the time this study was conducted, I also checked whether there was a difference in invitation rates between fathers who had taken leave and fathers who do not mention any leave in their CV, who may be presumed to not have taken any leave (Appendix A3). These data stem from a companion study (Hipp 2020) that used the same experimental design and materials but investigated the effects of parenthood on men's and women's hiring chances. These sensitivity analyses show no difference in invitation rates between fathers who did not mention any leave and fathers who mentioned that they had taken either two or 12 months of leave.

⁶ At the time this study was conducted, around 15 percent of mothers of young children who lived with a partner took no leave beyond the mandatory two months, which is the second most frequent duration of leave for mothers in Germany after 12 months (or more), which around 75% of mothers took (Bernhardt, Hipp and Allmendinger 2016). Only in more recent years has it become more common in Germany for the two parents to share parental leave equally (Schober et al. 2020).

given the average age difference between siblings in Germany of four years (Destatis 2017) and, hence, that they might soon take leave again.

At the time of applying for the job, both candidates were still working for their first employer; They had both been there for approximately five years and had both been promoted six months after they had returned from their leave. To ensure that the length of family leave was not confounded by work experience (or any other relevant recruitment characteristic), while simultaneously accounting for the 10-month difference in the length of family leave, the fictitious job applicants differed slightly in their birth dates and transition times between academic education and traineeships or internships.

Applicants' first names were chosen from the top-20 list in the respective age cohort. As I chose common last names for the fictitious job applicants, internet and social network searches for these names yielded a very high number of hits and thereby reduced suspicion and the risk of detection. As is typically the case in Germany, the CVs included photos of the applicants. In order to make sure that our applicants all looked equally attractive, competent, trustworthy, and so on, a large number of photos were pretested in the lab with student raters in order to select comparable pictures. The names of their current and previous employer (with whom they had completed an internship in college) were modeled after real (small) firms.

The application materials were reviewed by human resources managers from an event management agency and from a hotel and modified based on their suggestions. In addition, the application materials were tested informally (without the experimental condition) with coworkers and students during lectures, and systematically in the laboratory to ensure that the design of the applications did not have an impact on the perceived qualifications of the applicants. Moreover, the experimental conditions across the pairs of CVs were counterbalanced in order to ensure that only the effect of the treatment was measured.

The Field Experiment

In the field experiment, applications by either two fictitious female or two fictitious male job seekers were submitted in response to actual job advertisements between November 2014 and February 2016. Each employer received two applications from either two male or two female applicants with differing lengths of family leave (2 vs. 12 months). Full randomization was employed in the experiment using a random number generator (<https://www.random.org/>).

That is, job openings were randomly assigned to either the male or female pair of applicants; random assignment was also used for the treatment (2 vs. 12 month of leave), the application template (including photo and CV layout), and whether the application from the parent with the two or the 12 months of leave was sent first. In order to minimize suspicion, the second applications were sent out with a time lag of two to four days. A balance check showed that the experimental condition was approximately evenly distributed between the applicants and the order in which the applications were sent out. The applicants' CVs and reference letters remained unchanged throughout the application process.⁷ The use of comparable application materials and the even distribution of the experimental condition across applicants ensured that I only measured the effect of the treatment and nothing else. The number of applications sent out to employers was based on a priori power calculations and results from previous research (Correll, Benard and Paik 2007; Vuolo, Uggen and Lageson 2018).

The outcome variable in the field experiment was the invitation to a job interview. Using actual invitations as the dependent variable has several advantages compared to callbacks (Hipp 2020). Conceptually, invitations are an unequivocal signal of the employer's interest in a specific candidate, whereas callbacks are a less straightforward measure, since they require the researcher to code the callbacks according to sincerity. Moreover, as callback rates tend to be higher than invitation rates, using invitations rather than callbacks as the outcome variable *de facto* requires a smaller N and has the same statistical power in a labor market that is neither characterized by skill shortage nor high unemployment (Hipp 2020; Vuolo, Uggen and Lageson 2018).

The Laboratory Experiment

In the laboratory experiment, paid student subjects⁸ were asked to assess application materials from one of the two sets of fictitious job applicants (again, either two male or two

⁷ The CVs were only adapted in those very few instances in which the job advertisement required specific skills, and the cover letters varied only in the employer's address, date, and the specific job title used in the advertisement. As the study ran for almost 1.5 years, the applicants' age, dates of graduation, children's dates of birth, and so on were updated in the CVs and the letters of recommendation, ensuring that the application materials were comparable over time.

⁸ Although student raters differ from real employers in a variety of characteristics, including age and experience with applicant selection, student and manager samples have been shown to have high agreement in ratings of job applicants (Cleveland and Berman 1987; Olman and Schwab 1988).

female applicants, who differed with regard to their family leave but were otherwise comparable). Students were told to rate the applications based on their first impressions. No cover story or any other form of deception was used in the laboratory study. The laboratory data were collected between November 2014 and February 2015. The gender of student subjects was equally distributed across conditions. In total, 444 participants rated 94 pairs of male applications and 128 pairs of female applications.

The main outcome variable in the laboratory experiment was the hiring recommendation for one of the two applicants. To explore the causal mechanisms of discrimination against parents with short vs. long leave, study participants were also asked to rate the applicants on a variety of dimensions. To capture discrimination for statistical and status-based reasons, they were asked to assess the applicants' competence and commitment. To capture discrimination for normative reasons, they were asked to assess applicants' parental qualities, their warmth, likability, and scores on both stereotypical male and female traits. These measures were closely modeled after previous research (Benard and Correll 2010; Cuddy, Fiske and Glick 2004; Okimoto and Heilman 2012; Rudman and Mescher 2013) and are presented in detail in Table A1 in the Appendix. Moreover, students had the option to justify their hiring recommendations in answer to the open-text entries. At the end of the laboratory session, participants also completed short survey consisting of demographic and attitudinal questions.

ANALYTICAL STRATEGY

In the following, as a first step, I provide descriptive statistics on the distribution of invitations to job interviews in the field experiment and the distribution of hiring recommendations in the laboratory experiment. To investigate whether prospective employers and student raters treat fathers and mothers who had taken short family leave differently to those who had taken long leave and whether any potential differences were statistically significant, I conducted a McNemar's test, which is a nonparametric test that allows researchers to examine differences between paired proportions (Riach and Rich 2002; Vuolo, Uggen and Lageson 2018). Essentially, the test assesses statistically significant differences in those instances in which only one of the applicants was invited (i.e., the differences between the discordant cells π_{10} and π_{01}); the information regarding the instances in which either both or neither of the applicants were invited is used to determine the size of the difference (i.e., the information provided in the concordant cells π_{00} and π_{11}). In the next step, I estimate multivariable regressions (linear

probability models with employer fixed effects and robust standard errors) to reduce the variability introduced by “applicant characteristics”, such as the photograph or the layout of the CV (and student rater characteristics, when analyzing the laboratory data). Finally, I use the measures collected in the laboratory study on the fictitious job applicants’ competence, commitment, likeability, and so on, to further interpret my findings by conducting t-tests and mediation analyses. The mediation analyses shed light on the nature of the relationship between length of leave and hiring discrimination and allow me to test the validity of the various theoretical explanations (Imai, Keele and Tingley 2010).

FINDINGS

Field Experiment

Do employers treat parents differently based on the duration of family leave and does this differ by gender? To answer these questions, Table 2 presents the frequencies and percentages of applicants that received an invitation to a job interview in the field experiment by gender and duration of leave. Overall, the invitation rate for fictitious male applicants was around 20 percent. Independent of the length of leave, fathers in an applicant pair were treated equally by the large majority of employers. In around 74 percent of cases, employers did not invite either applicant, and in around 15 percent, employers invited both. In around 12 percent of cases, employers invited one but not the other, showing no preference for fathers who had taken short or long leave. The length of leave taken hence had no bearing on the fathers’ likelihood of being invited to a job interview—contrary to Hypothesis 1. We therefore find no support for the predictions derived from theories of statistical, status-based, and taste-based/normative discrimination for men.

For the female applicants, the overall invitation rate was around 18 percent. As was the case for fathers, the pairs of applicants were treated equally by the large majority of employers. In around 74 percent of the cases, employers did not invite either applicant, and in around 10 percent of cases, employers invited both. In around 16 percent of cases, employers invited one but not the other applicant, but here—in contrast to the results for fathers above—employers showed a clear preference: They invited only around 4 percent of mothers who had taken short leave to job interviews, but around 12 percent of mothers who had taken long leave. The results of the McNemar’s test show that these differences in the invitation rates for mothers who had

taken short and long leave are statistically significant at $p < 0.01$ (McNemar's chi-square of 6.53). This finding rejects the empirical prediction that mothers who have taken short parental leave are more likely to be invited to a job interview than mothers who have taken long parental leave (*statistical/status-based accounts*). Instead, this finding provides support for the competing hypothesis that mothers who have taken short parental leave are subject to discrimination for being “poor” mothers (*taste-based/normative accounts*).

Table 2: Interview invitations in the *field experiment* by gender and length of leave

Fathers	
Overall invitation rate: 20.39% (N = 73)	
Invitation rate fathers with short leave: 20.67% (N = 37)	
Invitation rate fathers with long leave: 20.11% (N = 36)	
π_{00} (no one invited)	π_{10} (only father w/ long leave invited)
73.74%	5.56%
π_{01} (only father w/ short leave invited)	π_{11} (both invited)
6.15%	14.53%
McNemar's $\chi^2(1) = 0.05$ Prob > $\chi^2 = 0.8273$	
Exact McNemar significance probability = 1.0000	
Mothers	
Overall invitation rate: 17.78% (N = 64)	
Invitation rate mothers with short leave: 13.88% (N = 25)	
Invitation rate mothers with long leave: 21.67% (N = 39)	
π_{00} (no one invited)	π_{10} (only mother w/ long leave invited)
73.89%	12.22%
π_{01} (only mother w/ short leave invited)	π_{11} (both invited)
4.44%	9.44%
McNemar's $\chi^2(1) = 6.53$ Prob > $\chi^2 = 0.0106$	
Exact McNemar significance probability = 0.0161	

Note: N = 718. A total of 358 job applications were sent out to 179 job openings for the fathers, and 360 applications were sent out to 180 openings for the mothers.

These results hold when controlling for the design of the application materials and the order in which the applications were sent out. Figure 1 compares the predicted marginal probabilities of receiving an invitation to an interview for mothers and fathers with different family leave durations based on linear probability models with employer fixed effects and robust standard errors; the results of a linear probability model with the pooled sample and cluster-robust standard errors yields similar results (Table A2 in the Appendix). The fathers' probability of

being invited to a job interview was not affected by the duration of family leave, whereas the mothers' probability of being invited to an interview increased by 50 percent (8 percentage points, $p < 0.05$) if they had taken 12 instead of two months of family leave in the past.

As the study design ensured that the applicants were equally qualified, and as the treatment (duration of family leave) was randomly assigned, these findings provide causal evidence that the duration of family leave is not relevant for fathers when applying for jobs. For mothers, by contrast, having previously taken no family leave beyond the legally mandatory time negatively affected their likelihood of getting an invitation to a job interview.

Figure 1: Probability of being invited to a job interview for mothers and fathers by leave duration (*field experiment*)

Note: $N = 718$. The figure displays the predicted probabilities of being invited to a job interview by gender and duration of family leave. The mothers' applications with 2 and 12 months of family leave were submitted for the same 180 job openings; the fathers', meanwhile, for the same 179 openings. That is, 718 applications were submitted for a total of 359 jobs. The graph is based on the results of a linear probability model with employer fixed effects and robust standard errors; the design of the application materials and the order in which the application materials were sent out were included as control variables.

Given that the majority of fathers in Germany today (around 65 percent) do not take any family leave at all—and since Weisshaar (2018) found for the United States that applying for a job while taking care of a child was more detrimental to men’s likelihood of receiving a callback than being unemployed—I sought to rule out the possibility that taking any leave is what matters for fathers when applying for jobs and not the length of leave. To do so, I combined my data with a companion study on the effects of being a parent vs. not being a parent (Hipp 2020) and examined whether fathers who did not mention any leave in their CVs were more likely to be invited to a job interview than fathers who mentioned that they had taken either 12 or two months of leave. The results of these sensitivity analyses show that there was no difference in invitation rates between fathers who did not mention any leave and fathers who mentioned that they had taken either 12 or two months of leave (Table A3 in the Appendix). If anything, fathers who had taken leave were invited to job interviews more often than fathers who did not mention any leave (but the difference is not statistically significant).⁹

Laboratory Experiment

While the field experiment showed that employers in Germany discriminate against mothers who had taken short family leave, it cannot explain why employers treat mothers differently depending on the length of their family leave but not fathers. To answer these questions, I now turn to the findings from the laboratory study, which confirm the findings from the field experiment. Student raters gave preferential treatment to mothers who had taken long leave over mothers who had taken short leave, but treated fathers with short and long leaves similarly. The difference in hiring recommendations for mothers who had taken short and long leave was again of substantial size (–20 percentage points) and statistically significant ($p < 0.001$), which supports the idea that mothers with short leave may be penalized based on cultural and preference-based accounts (normative discrimination). Although fathers who had taken long leave were also more likely to be recommended for a job interview than fathers who had taken short leave (+15 percentage points), this finding is not statistically significant based on a two-sample test of proportions (Table A4 in the Appendix). The findings of a linear probability model with rater fixed-effects and robust standard errors (Table A5 in the Appendix) show that these

⁹ These supplementary analyses can also be used to exclude the possibility that the equal distribution of interview invitations between fathers who took short and long leaves was due to a general preference for hiring fathers rather than nonfathers. According to the findings of a companion study (Hipp 2020), fathers and nonfathers in Germany do not seem to differ in their likelihood of being invited to a job interview.

findings are unaffected by the application design and the order in which the applications were shown to the raters.

To identify the mechanisms underlying the unequal treatment of mothers with different lengths of leave, I next examine how student subjects in the lab perceived the fictitious job applicants. Based on theories of statistical and status-based discrimination, both mothers and fathers who had taken long family leave should be perceived as less competent and committed to their work than the parents who had taken short leave. Theories of discrimination on preferences and normative grounds, by contrast, predict negative evaluations of the parents who exhibit gender-nonconforming behaviors. Thus, the fathers who took long family leave should be perceived as weaker and less agentic than the fathers who took short leave, and the mothers who took short family leave should be perceived as less good as a parent, less warm, less appealing, and less communal, and more hostile and dominant than mothers who took long family leave.

Table 3 presents the mean student ratings of male and female applicants with different leave lengths. The upper part of the table presents the ratings of the different perceived characteristics of the applicants connected to statistical/status-based discrimination, and the lower part presents the ratings for characteristics connected to normative/taste-based discrimination.¹⁰ The differences in the mean ratings of the composite measures between parents who took short and long leave were assessed with two-sided test statistics. An overview of the items underlying the composite measures are presented in the Appendix (Table A1).

Given that both the field and the laboratory experiment showed that parents who had taken short leave were not preferred over parents who had taken long leave, it is not surprising that the two groups were evaluated similarly with regard to their competence and commitment, that is, the measures that capture statistical/status-based discrimination. However, regarding the different measures that were designed to capture normative/taste-based discrimination, we see considerable differences in the evaluations of both mothers and fathers with different lengths

¹⁰ I would like to thank the anonymous reviewers for their suggestion to further disentangle the underlying motives for discrimination against mothers with long leave. In response, I supplemented the established measures of normative discrimination introduced by Benard and Correll (2010) with a measure of parental quality that was not included in earlier versions of the paper, but which I had collected using items by Okimoto and Heilman (2012). Including this measure is necessary to back up my claim that the observed discrimination against mothers with short leave was not related solely to personality but also to “poor” maternal qualities.

of leave. The fathers who had taken long leave were perceived to be warmer ($p < 0.05$), to have more interpersonal appeal ($p < 0.1$), and to be better parents ($p < 0.01$), but were also seen as less agentic ($p < 0.05$) than the fathers who had taken short family leave (see Denny 2013; Triana 2011 for similar findings). The additional personal qualities and interpersonal skills of fathers who had taken long family leave, hence, seem to be offset by the perception that they are ‘less masculine’, which may explain why the length of leave did not affect fathers’ employment chances in either the field or the laboratory experiment.

Table 3: Means of applicants’ evaluations in the *laboratory experiment*

	Fathers		Mothers	
Length of family leave (in months)	12	2	12	2
Status-Based/Statistical Discrimination				
Competence (Cronbach’s $\alpha = .87$)	5.16	5.24	5.53	5.48
Commitment (Cronbach’s $\alpha = .80$)	5.34	5.30	5.39	5.29
Normative/Taste-based Discrimination				
Parental qualities (Cronbach’s $\alpha = .89$)	5.57***	4.41***	5.38***	4.07***
Warmth (Cronbach’s $\alpha = .82$)	4.72*	4.42*	4.88*	4.62
Likeability (Cronbach’s $\alpha = .88$)	4.72	4.42	4.79	4.58
Interpersonal hostility (Cronbach’s $\alpha = .82$)	3.33	3.58	3.24*	3.54*
Interpersonal appeal (Cronbach’s $\alpha = .88$)	4.34+	4.04+	4.63*	4.35
Weakness (Cronbach’s $\alpha = .80$)	3.16	3.01	2.91	2.94
Communality (Cronbach’s $\alpha = .80$)	4.44	4.21	4.57*	4.25*
Agency (Cronbach’s $\alpha = .55$)	4.56*	4.84*	4.99	4.96
Dominance (Cronbach’s $\alpha = .76$)	3.69	3.89	3.86	4.04
N	94	94	128	128

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (p-values for two-sided test statistics).

Note: The underlying items for each composite measure and their respective source can be found in the Appendix (Table A1)

Mothers, by contrast, were always evaluated more positively if they had previously taken long instead of short leave. They were perceived to be warmer, less hostile, more communal, more interpersonally appealing, and better parents than mothers who had taken short leave ($p < 0.05/p < 0.001$). This finding is consistent with Benard and Correll’s study (2010) on normative discrimination, which showed that female (but not male) student evaluators in the United States discriminated against mothers who were highly successful.

To further explore the relationship between the evaluations of mothers who had taken short vs. long leave and their likelihood of being recommended for hiring, I conducted mediation analyses for those indicators that showed statistical significance in Table 3, namely parental qualities, warmth, interpersonal hostility, interpersonal appeal, and communality. As linear structural equation modelling approaches do not generalize to nonlinear models, I draw on Imai, Keele, and Tingley's (2010) average causal mediation analysis (see Pedulla 2016 for a similar approach). Table 4 presents the average mediation effect separately for each of these four measures and the proportion of the total effect explained by each indicator.

Table 4: Results of a mediation analysis to assess for the role of normative/taste-based discrimination against mothers with short leaves in the *laboratory experiment*

Mediator	Average mediation effect	% of total effect mediated
Parental qualities	.11 (.05, .17)	.57
Warmth	.047 (.01, .09)	.24
Interpersonal hostility	.033 (.003, .07)	.17
Interpersonal appeal	.032 (.003, .07)	.17
Communality	.055 (.013, .1)	.29

Note: N = 256 (128 pairs of observations). Separate analyses were performed for each mediator; 95% confidence intervals are in brackets. Estimates were derived from 1,500 simulations; robust standard errors are clustered by respondent

The results of the mediation analysis (Table 4) suggest that mothers' perceived parental qualities, warmth, hostility, interpersonal appeal, and communality indeed explain preferential treatment of mothers who took long leave. Parental qualities explain around 57 percent, perceived warmth explains around 24 percent, interpersonal hostility and appeal both around 17 percent, and communality almost 30 percent of the total variance of the effect of length of family leave on mothers' likelihood of being recommended for a job interview. Although the results of these mediation analyses cannot be interpreted causally due to a lack of random assignment of the mediator variables (see Elwert and Winship 2014 on the issue of endogenous selection bias), they nonetheless lend further support to my interpretation the field and laboratory experiment results and suggest that cultural and normative accounts may explain why employers prefer to work with mothers who took long leave.

Overall, the results from the laboratory experiment provide evidence that normative discrimination indeed explains the unequal treatment of mothers with different lengths of family leave by employers in Germany. These results align with the hypothesis that these mothers violate the ideal of a “good mother.”

Answers to the open-text entries in the survey questionnaire further show that mothers who had only taken short leave were perceived as *Rabenmütter* (“raven mothers”). Descriptions of mothers who had taken short leave ranged from neutral, such as “she only took two months of family leave, which means that work is really important to her,” to very judgmental: “No community service¹¹ and only two months of family leave is very little (might she be too ambitious and too dominant?).” Mothers who had taken long family leave, by contrast, were applauded for their choices: “The fact that she took one year of leave shows that she has her priorities straight,” or “Her family leave of one year is indicative of her sense of responsibility, her sensitivity, empathy, and family orientation. This is certainly helpful when dealing with clients.” While one should not extrapolate from student assessments to actual employers and HR managers, these quotes from the laboratory study nonetheless illustrate the normative judgments that career-oriented mothers in Germany may face.¹²

DISCUSSION AND CONCLUSION

This paper examined how signals of nontraditional childcare roles impact mothers’ and fathers’ likelihood of getting a job. In field and laboratory experiments conducted in Germany, a country in which both mothers and fathers are legally entitled to take up to 12 plus two months of paid family leave per child, I manipulated the length of family leave taken to approximate parents’ involvement in family life. The results of the study provide strong evidence of

¹¹ This description was actually not accurate, as both applicants had in fact listed community service in their CVs.

¹² The content of the open-text entries was also helpful in ruling out the possibility that the null finding on the length of leave taken by fathers was due to the frequent assumption that fathers use parental leave for other activities than childcare, in particular, activities that benefit their careers, as some evidence for academia in the United States suggests (see Antecol, Bedard and Stearns 2016 for the unequal benefits of tenure clock stopping policies; Lundquist, Misra and O’Meara 2012 on the unequal likelihood of leave usage of male and female faculty; Rhoads and Rhoads 2012 on differences in care time between male and female leave takers). Interestingly, the open-text entries in my study did not hint at this suspicion—potentially also because daycare for children younger than 12 months of age is very scarce in Germany; fewer than one percent of children aged 12 months or younger in western Germany and fewer than 3 percent in eastern Germany are cared for in nurseries or by a childminder (Destatis 2020).

normative discrimination against mothers who exhibit a strong attachment to the labor market by returning to work relatively soon after childbirth. The field experiment showed that mothers who had taken no more than the mandatory two months were 40 percent less likely to be invited to a job interview than mothers who had taken 12 months of leave, which is currently the most common duration for mothers. Fathers' likelihood of getting a job (or at least an invitation to a job interview), by contrast, was unaffected by the length of leave. The findings from the laboratory experiment suggest that mothers who only took short leave experienced employer discrimination for normative reasons. By contrast, the positive and negative evaluations of fathers who took short leave seemed to cancel each other out, which also appears to be the case for the evaluations of fathers who took long leave.

The findings of this study are of both theoretical and practical importance. The theoretical contribution of this article is twofold. First, in contrast to the widespread belief that discrimination occurs due to direct or indirect utility expectations, my study shows that discrimination can also occur to sanction norm-violating behaviors. By showing that mothers in Germany who return to the labor market relatively soon after the arrival of a child are less likely to be invited to a job interview than mothers who stay home for an entire year, this study provides evidence that mothers experience discrimination for normative reasons and not due to expectations about their productivity (at least in the occupational group under investigation). Second, in line with the general predictions of status characteristics theory that high-status actors may not be sanctioned for engaging in low-status activities, such as caregiving (Correll and Benard 2006; Ridgeway and Correll 2004), my study shows that men are not penalized when they deviate from culturally prescribed behaviors by taking a longer parental leave. Employers may consider extended leave to be a one-time exception that does not harm fathers' productivity and commitment. Men may hence need to repeatedly engage in low-status and norm-violating behaviors before being penalized, while "small behavioral cues" are sufficient for women to experience sanctions (see Ridgeway and Correll 2004).

These empirical findings and theoretical considerations add an additional and important layer to the extensive literature on fatherhood premiums with regard to wages (Cooke 2014), authority positions (Abendroth, Maas and van der Lippe 2011), and workplace evaluations (Correll, Benard and Paik 2007), which have been attributed to men's increased professional commitment and engagement as well as their financial obligation as fathers. Being an active

caregiver, however, contradicts both attributions. The findings of my study therefore lend support to the theoretical argument that men's higher social status in workplace contexts matters beyond their professional commitment and engagement and helps them to compensate for involvement in low-status activities (e.g., caregiving).

The practical and discouraging implication of my findings is that women with children face a Catch-22. On the one hand, they are disadvantaged in the labor market, because staying home with children may mean, or be construed to mean, losing valuable labor market experience and opportunities to develop professional skills. On the other hand, if they do their best to conform to the "ideal worker" norm by minimizing the time they spend away from their job after childbirth, they are perceived as less communal and warm, and may, therefore, have a more difficult time getting hired.

Before concluding this paper, I would like to raise a few issues that warrant discussion and may inspire future research. First, this study was designed to test the effects of the length of parental leave for applicants with the same amount of employment experience (by adjusting birth dates and educational transitions). However, it is likely that the positive effects that mothers encounter when taking long leave could be offset by having less work experience and resulting losses in human capital. Hence, in order to derive practical advice for mothers regarding the length of leave that is least detrimental to their hiring chances, it is necessary to further test how employers evaluate women who took short family leave in comparison to women who took long leave and therefore have less work experience.

Second, examining variations in leave effects depending on the timing, the duration, and the frequency of family leave on mothers' and fathers' employment chances would be another relevant avenue for future research. Weisshaar (2018) found hiring penalties for both mothers and fathers in the United States who applied for jobs when they were out of the labor force due to childcare responsibilities. The "scar" of being actively involved in parenting might fade away over time, but it is unclear how applying for a job immediately after a care-related work interruption may play out—both in the German context and elsewhere. Likewise, the length of leave parents take may also play out differently if they have several children or in cases when the length of leave, e.g., sharing the 14 months equally, is indicative of an egalitarian family model, which has become more common in Germany in recent years. Another promising area for

further research is the comparison of the effects of different types of leave (e.g., family leave, medical leave, or travel).

Third, this study examined the effects of family leave in the German context for one particular occupation. Although the occupation chosen for this study is not limited to specific economic sectors or to organizations of a certain size, it is impossible to say whether similar effects would be found for other occupations. It might very well be that the results for both male and female job applicants would differ when they are applying for jobs in low-status or high-status occupations (e.g., see Luhr 2020 on male and female service workers' strategies to deal with family obligations) or jobs that are perceived to either be “typically male” or “typically female” (e.g., due to the types of tasks performed or unequal gender ratios). Likewise, the findings from this study do not allow us to predict the consequences of taking parental leave in other contexts. In the United States, for example, where there is no universal paid leave system, mothers may not be at less of a disadvantage than fathers for taking long leaves. To test the generalizability of the results, future research should investigate the degree to which career interruptions play out in different types of occupations and different welfare state settings.

Notwithstanding these limitations and the need for further research, this study makes a few important contributions. By showing that different degrees of childcare involvement affect men and women unequally when applying for jobs, this study adds to the existing literature on persistent gender inequalities and the ongoing debates about paid family leave programs for parents of new children. My findings challenge the widespread belief that young women can avoid motherhood penalties by “leaning in,” that is, by returning to employment quickly. Conventional wisdom suggests that a quick return to paid work signals strong commitment, helps to minimize the deterioration of human capital, and increases work experience. All of these factors should help women’s careers and their professional advancement. This advice, however, is not necessarily well-founded, as my study shows. All else being equal, mothers who stay home with their child for a time that is considered “appropriate” and normal (which is 12 months in Germany) receive more positive evaluations and have a greater likelihood of being invited to a job interview than mothers who only stay home for a short time. However, women cannot take long family leave without the risk of losing labor market experience and human capital. My study’s findings therefore suggest that women cannot do it “right”—no matter what they do.

Fathers' labor market chances, measured by how they are evaluated as job candidates and their likelihood of being invited to a job interview, do not seem to be affected by whether they take two months of family leave, which has become increasingly typical for fathers in Germany, or a year, as mothers typically do. This finding has the encouraging implication that men—at least in Germany, where observational studies on fathers' leave take-up have also found no penalties in terms of wages (Bünning 2016) or self-perceived career prospects (Samtleben et al. 2019)—can be more courageous regarding their involvement in family life.

The policy implications of my study are hence twofold: First, the inclusion of personal information in job applications, such as parental status or the length of leave previously taken, which is common practice in Germany, seems to be detrimental to gender equality and should therefore be legally prohibited, as is the case in many other countries, including the United States. Second, family leave systems should provide incentives for both parents to take leave after the birth of a child to ensure that the mechanisms identified in this study do not reinforce stereotypical gender roles and discourage a more equal division of care work.

BIBLIOGRAPHY

- Abendroth, Anja-Kristin, Ineke Maas, and Tanja van der Lippe. 2011. "Human capital and the gender gap in authority in European countries." *European Sociological Review* 29(2):261-73.
- Acker, Joan. 1990. "Hierarchies, jobs, bodies: a theory of gendered organizations." *Gender & Society* 4(2):139-58.
- Albrecht, James, Peter S. Thoursie, and Susan Vroman. 2015. "Parental leave and the glass ceiling in Sweden " *Institute for Evaluation of Labour Market and Education Policy (IFAU), Working Paper* (4).
- Antecol, Heather, Kelly Bedard, and Jenna Stearns. 2016. "Equal but inequitable: Who benefits from gender-neutral tenure clock stopping policies?" *IZA Discussion Paper Series* 9904.
- Aranda, Beatriz, and Peter Glick. 2014. "Signaling devotion to work over family undermines the motherhood penalty." *Group processes & intergroup relations* 17(1):91-99.
- Aronson, Elliot, Marilynn Brewer, and J. Merrill Carlsmith. 1985. "Experimentation in social psychology." Pp. 441-86 in *The Handbook of Social Psychology*, edited by Gardner Lindzey and Elliot Aronson. Reading, MA: Addison-Wesley.
- Arrow, Kenneth J. 1973. "The theory of discrimination." Pp. 3-33 in *Discrimination in Labor Markets*, edited by Orley Ashenfelter and Albert Rees. Princeton, N.J.: Princeton University Press.
- Baert, Stijn, Lauren Aers, Stephanie Bogaert, and Nick Deschacht. 2018. "Does parenthood damage your CV?" *Working Paper*.
- Becker, Gary S. 1957. "The economics of discrimination." Chicago: University of Chicago Press.
- Benard, Stephen, and Shelly J. Correll. 2010. "Normative discrimination and the motherhood penalty." *Gender & Society* 24(5):616-46.
- Benard, Stephen, In Paik, and Shelley J. Correll. 2008. "Cognitive bias and the motherhood penalty." *Hastings Law Journal* 59(6):1359-87.
- Bernhardt, Janine, Lena Hipp, and Jutta Allmendinger. 2016. "Warum nicht fifty-fifty? Betriebliche Rahmenbedingungen der Aufteilung von Erwerbs- und Fürsorgearbeit in Paarfamilien." in *WZB Discussion Paper SP I 2016-501*. Berlin.
- Blair-Loy, Mary. 2004. "Work devotion and work time." Pp. 282-316 in *Fighting for time: Shifting boundaries of work and social life*, edited by Cynthia Fuchs Epstein and Arne L. Kalleberg. New York: Russell Sage Foundation.
- Blome, Agnes. 2017. *The politics of work-family policy reforms in Germany and Italy*. London & New York: Routledge.
- BMFSFJ. 2016. "Väterreport 2016: Vater sein in Deutschland heute." <https://www.bmfsfj.de/blob/112720/2d7af062c2bc70c8166f5bca1b2a331e/vaeterreport-2016-data.pdf>

- Budig, Michelle, Joya Misra, and Irene Boeckmann. 2012. "The motherhood penalty in cross-national perspective: The importance of work–family policies and cultural attitudes." *Social Politics* 19(2):163-93.
- . 2016. "Work–family policy trade-offs for mothers? Unpacking the cross-national variation in motherhood earnings penalties." *Work and Occupations* 43(2):119-77.
- Bünning, Mareike. 2016. "Die Vereinbarkeitsfrage für Männer: Welche Auswirkungen haben Elternzeiten und Teilzeitarbeit auf die Stundenlöhne von Vätern?" *KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie* 68(4):597-618.
- Busch, Anne, and Elke Holst. 2011. "Gender-specific occupational segregation, glass ceiling effects, and earnings in managerial positions: Results of a fixed effects model." *DIW Berlin Discussion Papers* 1101.
- Bygren, Magnus, Anni Erlandsson, and Michael Gähler. 2017. "Do employers prefer fathers? Evidence from a field experiment testing the gender by parenthood interaction effect on callbacks to job applications." *European Sociological Review* 33(3):337-48.
- Cech, Erin A., and Mary Blair-Loy. 2014. "Consequences of flexibility stigma among academic scientists and engineers." *Work and Occupations* 41(1):86-110.
- Cha, Youngjoo. 2013. "Overwork and the persistence of gender segregation in occupations." *Gender & Society* 27(2):158-84.
- Cha, Youngjoo, and Sarah Thébaud. 2009. "Labor markets, breadwinning, and beliefs: How economic context shapes men's gender ideology." *Gender & Society* 23(2):215-43.
- Charles, Maria, and Erin A. Cech. 2010. "Beliefs about maternal employment." Pp. 147-74 in *Dividing the domestic: Men, women, and household work in cross-national perspective*, edited by Judith Treas and Sonja Drobnič. Stanford, CA: Stanford University Press.
- Cleveland, Jeanette N., and Andrew H. Berman. 1987. "Age perceptions of jobs: Agreement between samples of students and managers." *Psychological Reports* 61(2):565-66.
- Collins, Caitlyn. 2019. *Making motherhood work: How women manage careers and caregiving*. Princeton, N.J.: Princeton University Press.
- Coltrane, Scott, Elizabeth C. Miller, Tracy DeHaan, and Lauren Stewart. 2013. "Fathers and the Flexibility Stigma." *Journal of Social Issues* 69(2):279–302.
- Connell, Raewyn W. 1995. *Masculinities*. Berkeley, CA: University of California Press.
- Cooke, Lynn P. 2014. "Gendered parenthood penalties and premiums across the earnings distribution in Australia, the United Kingdom, and the United States." *European Sociological Review* 30(3):360-72.
- Correll, Shelley J., and Stephen Benard. 2006. "Biased estimators? Comparing status and statistical theories of gender discrimination." *Social Psychology of the Workplace: Advances in Group Process* 23:89-116.
- Correll, Shelley J., Stephen Benard, and In Paik. 2007. "Getting a job: Is there a motherhood penalty?" *American Journal of Sociology* 112(5):1297-339.

- Cuddy, Amy J. C. , Susan T. Fiske, and Peter Glick. 2004. "When professionals become mothers, warmth doesn't cut the ice." *Journal of Social Issues* 60(4):701-18.
- Denny, Kathleen E. 2013. "Privileging the privileged: Evaluations of fathers in the professional workplace by level of involvement with children and race." edited by University of Maryland.
- Destatis. 2017. "Geburtenabstand zum Geburtstag des vorangegangenen Kindes der Mutter 2015." <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Geburten/Tabellen/lebendgeborene-geburtenabstand.html>.
- . 2020. "Betreuungsquote unter dreijähriger Kinder: Landkreise in Sachsen-Anhalt bundesweit Spitzenreiter." https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/08/PD20_318_225.html;jsessionid=1FBDD91CC48EFD28AD62DAB1DE5DF2E7.internet8721.
- Elwert, Felix, and Christopher Winship. 2014. "Endogenous selection bias: The problem of conditioning on a collider variable." *Annual Review of Sociology* 40:31-53.
- England, Paula, Jonathan Bearak, Michelle Budig, and Melissa J. Hodges. 2016. "Do highly paid, highly skilled women experience the largest motherhood penalty?" *American Sociological Review* 81(6):1161-89.
- Ennis, Linda R. 2014. *Intensive mothering: The cultural contradictions of modern motherhood*. Toronto: Demeter Press.
- Fernandez-Lozano, Irina, M. José González, Teresa Jurado-Guerrero, and Juan-Ignacio Martínez-Pastor. 2019. "The Hidden Cost of Flexibility: A Factorial Survey Experiment on Job Promotion" *European Sociological Review* 36(2):265-83.
- Firth, Michael. 1982. "Sex discrimination in job opportunities for women." *Sex Roles* 8(8):891-901.
- Fleischmann, Alexandra, and Monika Sieverding. 2015. "Reactions toward men who have taken parental leave: Does the length of parental leave matter?" *Sex Roles* 72(9):462–76.
- Foschi, Martha. 2000. "Double Standards for Competence: Theory and Research." *Annual Review of Sociology* 26(1):21-42.
- Gangl, Markus, and Andrea Ziefle. 2009. "Motherhood, labor force behavior, and women's careers. An empirical assessment of the wage penalty for motherhood in Britain, Germany, and the United States." *Demography* 46(2):341-69.
- . 2015. "The making of a good woman: Extended parental leave entitlements and mothers' work commitment in Germany." *American Journal of Sociology* 121(2):511-63.
- Geisler, Esther, and Michaela Kreyenfeld. 2019. "Policy reform and fathers' use of parental leave in Germany: The role of education and workplace characteristics." *Journal of European Social Policy* 29(2):273-91.
- Glass, Christy, and Eva Fodor. 2017. "Managing motherhood: Job context and employer bias." *Work and Occupations* 45(2):202-34.
- Glick, Peter, and Susan T. Fiske. 2007. "Sex discrimination: The psychological approach." Pp. 155–87 in *Sex discrimination in the workplace: Multidisciplinary perspectives*, edited by Faye J. Crosby, Margaret S. Stockdale, and S. Ann Ropp. Malden, MS: Blackwell Publishing.

- González, M. José, Clara Cortina, and Jorge Rodríguez. 2019. "The role of gender stereotypes in hiring: A field experiment " *European Sociological Review* 35(2):187-204.
- Halley, Meghan C., Alison S. Rustagi, Jeanette S. Torres, Elizabeth Linos, Victoria Plaut, Christina Mangurian, Esther Choo, and Eleni Linos. 2018. "Physician mothers' experience of workplace discrimination: a qualitative analysis." *bmj* 363.
- Hays, Sharon. 1996. *The cultural contradictions of motherhood*. New Haven, CT: Yale University Press.
- Hipp, Lena. 2020. "Do hiring practices penalize women and benefit men for having children? Experimental evidence from Germany." *European Sociological Review* 36(2):250-64.
- Imai, Kosuke, Luke Keele, and Dustin Tingley. 2010. "A general approach to causal mediation analysis." *Psychological Methods* 15(4):309-34.
- Ishizuka, Patrick. 2019. "Social class, gender, and contemporary parenting standards in the United States: Evidence from a national survey experiment " *Social Forces* 98(1):31-58.
- Jacobs, Jerry A., and Kathleen Gerson. 2015. "Unpacking Americans' Views of the Employment of Mothers and Fathers Using National Vignette Survey Data: SWS Presidential Address " *Gender & Society* 30(3):413-41.
- Joshi, Meghana. 2021. "'I Do Not Want to be a Weekend Papa': The Demographic 'Crisis,' Active Fatherhood, and Emergent Caring Masculinities in Berlin." *Journal of Family Issues* 42(5):883-907.
- Killewald, Alexandra. 2012. "A reconsideration of the fatherhood premium: Marriage, coresidence, biology, and fathers' wages." *American Sociological Review* 78(1):96-116.
- Klabunde, Anna, and Evelyn Korn. 2010. "Parasites and raven mothers: A German-Japanese comparison on (lone) motherhood." *Ruhr Economic Paper No. 196*.
- Kleven, Henrik, Camille Landais, and Jakob E. Søgaaard. 2018. "Children and gender inequality: Evidence from Denmark." *NBER Working Paper No. 24219*.
- Kmec, Julie A. 2011. "Are motherhood penalties and fatherhood bonuses warranted? Comparing pro-work behaviors and conditions of mothers, fathers, and non-parents." *Social Science Research* 40(2):444-59.
- Kmec, Julie A., Matt L. Huffman, and Andrew M. Penner. 2013. "Being a parent or having a parent? The perceived employability of men and women who take employment leave." *American Behavioral Scientist*:0002764213503338.
- Koslowski, Alison S. 2011. "Working fathers in Europe. Earning and caring." *European Sociological Review* 27(2):230-45.
- Koslowski, Alison Smith. 2021. "Capturing the Gender Gap in the Scope of Parenting Related Leave Policies Across Nations." *Social Inclusion* 9(2):250-61.
- Krstic, Anja, and Ivona Hideg. 2019. "The effect of taking a paternity leave on men's career outcomes: The role of communality perceptions." *Academy of Management Annual Meeting Proceedings* 1.

- Kühhirt, Michael. 2012. "Childbirth and the long-term division of labour within couples: How do substitution, bargaining power, and norms affect parents' time allocation in West Germany?" *European Sociological Review* 28(5):565-82.
- Luhr, Sigrid. 2020. "Signaling parenthood: Managing the motherhood penalty and fatherhood premium in the U.S. service sector " *Gender & Society* 34(2):259-83.
- Lundquist, Jennifer H., Joya Misra, and KerryAnn O'Meara. 2012. "Parental leave usage by fathers and mothers at an American university." *Fathering* 10(3):337-63.
- Mari, Gabriele. 2020. "Is there a fatherhood wage premium? A reassessment in societies with strong male-breadwinner legacies." *Journal of Marriage and Family* 81(5):1033-52.
- Mari, Gabriele, and Giorgio Cutuli. 2020. "Do parental leaves make the motherhood wage penalty worse?" *European Sociological Review*.
- Maume, David J. 1999. "Occupational segregation and the career mobility of white men and women." *Social Forces* 77(4):1433-59.
- Neumark, David. 2012. "Detecting Discrimination in Audit and Correspondence Studies." *Journal of Human Resources* 47(4):1128-57.
- OECD. 2018. *Is the last mile the longest? Economic gains from gender equality in Nordic countries*. Paris: OECD Publishing.
- Oesch, Daniel, Oliver Lipps, and Patrick McDonald. 2017. "The wage penalty for motherhood: Evidence on discrimination from panel data and a survey experiment for Switzerland." *Demographic Research* 37:1793-824.
- Okimoto, Tyler G., and Madeline E. Heilman. 2012. "The "bad parent" assumption: How gender stereotypes affect reactions to working mothers." *Journal of Social Issues* 68(4):704-24.
- Olian, Judy D., and Donald P. Schwab. 1988. "The Impact of Applicant Gender Compared to Qualifications on Hiring Recommendations. A Meta-analysis of Experimental Studies." *Organizational Behavior and Human Decision Processes* 41:180-95.
- Paluck, Elizabeth L., and Eldar Shafir. 2017. "The psychology of construal in the design of field experiments." Pp. 245-68 in *Handbook of field experiments*, edited by Esther Duflo and Abhijit Banerjee. Amsterdam: North Holland.
- Pedulla, David S. 2016. "Penalized or protected? Gender and the consequences of nonstandard and mismatched employment histories." *American Sociological Review* 81(2):262-89.
- Pedulla, David S., and Sarah Thébaud. 2015. "Can we finish the revolution? Gender, work-family ideals, and institutional constraint." *American Sociological Review* 80(1):116 - 39.
- Pfahl, Svenja, and Stefan Reuyß. 2009. *Das neue Elterngeld: Erfahrungen und betriebliche Nutzungsbedingungen von Vätern*. Düsseldorf: Hans-Böckler-Stiftung.
- Phelps, Edmund S. 1972. "The statistical theory of racism and sexism." *The American Economic Review* 62(4):659-61.
- Rege, Mari, and Ingeborg F. Solli. 2013. "The impact of paternity leave on fathers' future earnings." *Demography* 50(6):2255-77.

- Rhoads, Steven E, and Christopher H Rhoads. 2012. "Gender roles and infant/toddler care: Male and female professors on the tenure track." *Journal of Social, Evolutionary, and Cultural Psychology* 6(1):13.
- Riach, Peter A., and Judith Rich. 2002. "Field experiments of discrimination in the market place." *The Economic Journal* 112(483):F480-F518.
- Ridgeway, Cecilia L., and Shelley J. Correll. 2004. "Motherhood as status characteristic." *Journal of Social Issues* 60(4):683-700.
- Rissing, Ben A., and Emilio J. Castilla. 2014. "House of green cards: Statistical or preference-based inequality in the employment of foreign nationals." *American Sociological Review* 79(6):1226-55.
- Rudman, Laurie A., and Kimberly Fairchild. 2004. "Reactions to counterstereotypic behavior: The role of backlash in cultural stereotype maintenance." *Journal of Personality and Social Psychology* 87(2):157.
- Rudman, Laurie A., and Kris Mescher. 2013. "Penalizing men who request a family leave: Is flexibility stigma a femininity stigma?" *Journal of Social Issues* 69(2):322-40.
- Rudman, Laurie A., and Julie E. Phelan. 2008. "Backlash effects for disconforming gender stereotypes in organizations." *Research in Organizational Behavior* 28:61-79.
- Samtleben, Claire, Julia Bringmann, Mareike Bünning, and Lena Hipp. 2019. "What helps and what hinders? Exploring the role of workplace characteristics for parental leave use and its career consequences " *Social Sciences* 8(10):270.
- Schober, P., S. Blum, D. Erler, and T. Reimer. 2020. "Germany country note." in *International Review of Leave Policies and Research*, edited by A. Koslowski, S. Blum, I. Dobrotić, G. Kaufman, and P. Moss. http://www.leavenetwork.org/lp_and_r_reports/
- Stone, Pamela. 2007. *Opting out?: Why women really quit careers and head home*
Berkeley, CA: University of California Press.
- Stone, Pamela, and Lisa A. Hernandez. 2013. "The all-or-nothing workplace: Flexibility stigma and "opting out" among professional-managerial women." *Journal of Social Issues* 69(2):235-56.
- Theunissen, Gert, Marijke Verbruggen, Anneleen Forrier, and Luc Sels. 2011. "Career sidestep, wage setback? The impact of different types of employment interruptions on wages." *Gender, Work & Organization* 18(1):110-31.
- Tilcsik, András. 2021. "Statistical Discrimination and the Rationalization of Stereotypes." *American Sociological Review* 86(1):93-122.
- Townsend, Nicholas W. 2002. *The package deal. Marriage, work, and fatherhood in men's lives*. Philadelphia, PA: Temple University Press.
- Triana, María del Carmen. 2011. "A woman's place and a man's duty: How gender role incongruence in one's family life can result in home-related spillover discrimination at work." *Journal of Business and Psychology* 26(1):71-86.

- Vandello, Joseph A., Jennifer K. Bosson, Dov Cohen, Rochelle M. Burnaford, and Jonathan R. Weaver. 2008. "Precarious manhood." *Journal of Personality and Social Psychology* 95(6):1325-39.
- Vinkenburg, Claartje J. , Marloes L. van Engen, Jennifer Coffeng, and Josje S. E. Dijkers. 2012. "Bias in employment decisions about mothers and fathers: The (dis)advantages of sharing care responsibilities." *Journal of Social Issues* 68(4):725-41.
- Vuolo, Mike, Christopher Uggen, and Sarah Lageson. 2018. "To match or not to match? Statistical and substantive considerations in audit design and analysis." Pp. 119-41 in *Audit Studies: Behind the Scenes with Theory, Method and Nuance*, edited by S. Michael Gaddis: Springer.
- Wayne, Julie H., and Bryanne L. Cordeiro. 2003. "Who is a good organizational citizen? Social perception of male and female employees who use family leave." *Sex Roles* 49(5/6):233-46.
- Weisshaar, Katherine. 2018. "From opt out to blocked out: The challenges for labor market re-entry after family-related employment lapses " *American Sociological Review* 83(1):34-60.
- . 2021. "Employment Lapses and Subsequent Hiring Disadvantages: An Experimental Approach Examining Types of Discrimination and Mechanisms." *Socius* 7:23780231211019861.
- Williams, J., Mary Blair-Loy, and Jennifer L. Berdahl. 2013a. "The Flexibility Stigma: Work devotion vs. family devotion." Pp. 34-39 in *Rotman Magazine*. Toronto: University of Toronto.
- Williams, Joan, Mary Blair-Loy, and Jennifer L. Berdahl. 2013b. "Cultural Schemas, Social Class, and the Flexibility." *Journal of Social Issues* 69(2):209-34.
- Wünsch, Ulrich. 2008. "Gehaltsspiegel: Eventmanager in Deutschland." Bad Honnef: Internationale Fachhochschule.

Table A1: Overview on measures used to capture statistical/status-based and normative/taste-based discrimination in the *laboratory experiment*

Status-based/Statistical discrimination	
Competence	“How capable, efficient, skilled, intelligent, independent, self-confident, aggressive, organized do you consider this applicant?”; Cronbach’s $\alpha = .87$ (Correll, Benard and Paik 2007; Cuddy, Fiske and Glick 2004)
Commitment	“The applicant is more committed, more loyal, more engaged than X% of their competitors.”; Cronbach’s $\alpha = .80$ (Correll, Benard and Paik 2007).
Normative/Taste-based discrimination	
Parental qualities	“How committed do you think this person is to his/her family? How family-oriented do you think this person is? How good of a parent do you think this person is?”; Cronbach’s $\alpha = .89$ (Okimoto and Heilman 2012)
Warmth	“How sincere, trustworthy, warm, aware of others’ feelings, good-natured do you consider this applicant?”; Cronbach’s $\alpha = .82$ (Benard and Correll 2010, Correll, Benard and Paik 2007 and Cuddy, Fiske and Glick 2004)
Likeability	“Do you consider this person likeable? How much do you think you would like this person?”; Cronbach’s $\alpha = .88$ (Okimoto and Heilman 2012)
Interpersonal hostility	“How abrasive, manipulative, selfish, pushy, conniving do you consider this applicant?”; Cronbach’s $\alpha = .82$ (Benard and Correll 2010)
Interpersonal appeal	“How much would you want this person to be your neighbor? / to be friends with this person? / your children to be friends with this person’s children? / to work with this person?”; Cronbach’s $\alpha = .88$ (Okimoto and Heilman 2012)
Weakness	“How weak, naive, insecure, emotional do you consider this applicant?”; Cronbach’s $\alpha = .80$ (Rudman and Mescher 2013)
Communality	“How warm, supportive, humble do you consider this applicant? How good of a listener do you consider this applicant?”; Cronbach’s $\alpha = .80$ (Rudman and Mescher 2013)
Agency	“How intelligent, competitive, confident do you consider this applicant? How strong of a leader do you consider this applicant?”; Cronbach’s $\alpha = .55$ (Rudman and Mescher 2013)
Dominance	“How dominant, aggressive, intimidating, arrogant do you consider this applicant?”; Cronbach’s $\alpha = .76$ (Rudman and Mescher 2013)

Table A2: Results of a pooled linear probability model on mothers' and fathers' likelihood of being invited to a job interview by parental leave duration (*field experiment*)

	b/t	b/t
Constant	0.207** (6.81)	0.248** (6.18)
Mother	-0.068+ (-1.70)	-0.067+ (-1.68)
Long Leave	-0.006 (-0.16)	-0.004 (-0.16)
Mother*Long Leave	0.083* (2.11)	0.082* (2.09)
Application design		0.012 (0.60)
Order in which application was sent out		-0.032 (-1.60)
	N = 718	N = 718

+ p<0.1, * p < 0.05, ** p < 0.01

Note: t-statistics are presented in parentheses; the standard errors are clustered and robust to take the nonindependence of the collected data into account

Table A3: Results of a linear probability model on fathers' likelihood of being invited to a job interview by mention of parental leave duration (*field experiment*)

	12 months vs. no mention b/t	2 months vs. no mention b/t
Constant	0.192*** (5.15)	0.137*** (3.64)
Leave (ref. no mention of leave)	0.059 (1.53)	0.065 (1.65)
Application design	-0.095* (-2.48)	0.022 (0.58)
Order in which application was sent out	-0.004 (-0.09)	-0.012 (-0.31)
	N = 383	N = 383

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: In this table, data from two experiments are combined. The sample consists of 180 fathers who mentioned that they had taken two months of family leave, 180 fathers who mentioned that they had taken 12 months of family leave, and 203 fathers who did not mention any leave in their CVs. Robust standard errors were estimated.

Table A4: Hiring recommendations by gender and length of leave (*laboratory experiment*)

Fathers		
(N = 188)		
π_{00} (no one recommended)		π_{10} (only father w/ long leave recommended)
6.38%		52.26%
π_{01} (only father w/ short leave recommended)		n.a.
39.36%		
Mothers		
(N = 256)		
π_{00} (no one recommended)		π_{10} (only mother w/ long leave recommended)
3.91%		57.81%
π_{01} (only mother w/ short leave recommended)		n.a.
38.28%		

Note: Student raters reviewed 128 pairs of applications for the mothers and 94 pairs of applications for the fathers and were asked which of the candidate (if any) they would recommend for an invitation to a job interview. The results of a two-sample test of proportions (two-tailed) shows that the difference in recommendation rates between mothers with short vs. long leaves is statistically significant ($p < 0.05$) but not between fathers.

Table A5: Results of a linear probability model with rater fixed-effects on mothers' and fathers' hiring recommendations by gender and parental leave duration (*laboratory experiment*)

	Mothers	Fathers
	b/t	b/t
Constant	0.421*** (5.53)	0.437*** (5.04)
12 months of family leave	0.190* (2.23)	0.126 (1.32)
Order in which applications were reviewed	-0.123 (-1.45)	-0.241* (-2.52)
Application design	0.053 (0.62)	0.176 (1.85)
σ_u	.10	.12
σ_e	.68	.65
N	256	188

+ p < 0.1, * p < 0.05, ** p < 0.01

Note: N = 222. Student raters reviewed 128 pairs of applications for the mothers and 94 pairs of applications for the fathers.