Gender-based wage discrimination and the backlash effect in recruitment and dismissal processes: Experimental evidence from Slovakia

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Abstract

A sample of 155 HR managers participated in an experimental vignette study. In Task 1, they evaluated three CV resumes in terms of the applicants' competence, hireability, likeability and wage proposal of three applicants applying for a regional sales manager post. Half of the sample received CVs presented as females' and half as males', otherwise the CVs were identical. Generally, male and female applicants were evaluated similarly in terms of competence and hireability. Average and worst male applicants were evaluated as less likeable than identical females. However, wages offered to female applicants were significantly lower than those offered to male applicants. We were unable to identify moderators of the phenomenon other than female HR managers driving the effect. In Task 2, participants were showed a set of vignettes presenting six employees (3 men and 3 women) preselected to be dismissed due to the economic crisis. Apart from basic demographics, the employees were described in terms of age, years in the company and frequency of absences. Again, we switched employees' gender for half of the sample. We have found that HR managers are more likely to dismiss male employees and that they are particularly unforgiving to male workers with frequent absences.

Keywords: gender wage gap, gender discrimination, gender bias, backlash effect, differential treatment

Introduction and literature overview

The present study investigates differential treatment of men and women in the labour market as expressed in recruitment and dismissal processes and focuses on the impact of discrimination and tacit gender biases on men and women labour market outcomes. Although today, overt gender discrimination is rarer than it used to be and social norms evolve towards greater acceptance of gender equality, women remain to be underpaid and underrepresented in the labour market, particularly in higher occupational echelons (Bertrand, 2018). According to the European Institute for Gender Equality, progress in gender equality in the EU has been unsatisfactorily slow and is driven by a couple of member states, such as Denmark and Sweden, where the Gender Equality Index (GEI) reaches 77.5 and 83.6 out of 100 (full equality), respectively. The index covers six main domains including *work*, *time* and *money* and for all 28 EU member states it scores only 67.4. Particularly, 67 percent of working age women have any

form of job compared to 79 percent of men with occupational segregation remaining a significant issue throughout the EU. 30 percent of working women are employed in education, health and social work compared to only 8 percent of men. On the contrary, only 7 percent of women work in science, technology, engineering and medicine while third of male working force is employed in the STEM sector, i.e., the area related to higher compensations. There is also a significant overrepresentation of women working part time—over 30 percent compared to 8 percent of men. Finally, nearly 80 percent of women do household chores daily—including cooking, cleaning and caring for family members—compared to only 34 percent of men. These disparities are believed to be the driving factors contributing to the gender wage gap with women on average earning 20 percent less than men with the pension gap being even wider (35 percent). Adjusted gender wage gap—controlled for years of education and tenure—calculated by (Amado, Santos, & Sao Jose, 2018) can be as high as 45% in specific industries such as finance and insurance.

Previous research has attempted to identify sources of the disparity indicating that distinct preferences, motivations, and life choices could contribute to the unequal distribution of household chores, occupational segregation and the gender wage gap. Although there is empirical evidence supporting the hypothesis that women have different risk, loss and competitiveness preferences, make different educational choices, are less mobile in the labour market, value more flexibility even at a cost of lower wages, take jobs in sectors offering lower compensations and prefer fixed over volatile compensation schemes (Bertrand, 2018; Bonin, Dohmen, Falk, Huffman, & Sunde, 2007; Chapman & Benis, 2017; Croson & Gneezy, 2009; B. T. Dohmen & Falk, 2011; T. Dohmen, Falk, Huffman, & Sunde, 2012; Francesconi & Parey, 2018; Gneezy, Niederle, & Rustichini, 2003; Jaeger et al., 2010; Klinowski, 2019; Pearlman, 2019, 2018; Petrongolo & Ronchi, 2020), it is still possible that some of the persistent labour market disparities are attributable to discrimination and gender biases. As (Blau & Kahn, 2017) observed, even after controlling for human capital (including educational attainment and professional experience), cognitive and non-cognitive skills, number of working hours, gender division of non-market work, parenthood, vertical and horizontal occupational segregation, a substantial portion of the gender wage gap remains unexplained. Although some of the persisting gap may be due to factors not included in the analyses, it seems likely that at least some portion of the disparity is caused by various forms of discrimination and gender norms regulating men and women choices and preferences.

There are two dominating theoretical approaches to the issue of discrimination, i.e., a situation when equally productive individuals are rewarded differently for their work. The first one was proposed by (G. S. Becker, 1957) and assumes that employers have a distaste for employing women and thus females' lower wages are a form of employer's premium. In a more complex version, employers may be aware that male employees wouldn't like working with women and thus to tolerate female colleagues they need to be compensated with higher salaries. On the other hand, (Arrow, 1971) and (Phelps, 1972) suggested that in a world where information is scarce, employers may believe that gender is a reliable signal of both competence and labour market attachment. Consequently, employment decisions would be based on information about average skills in the population, even if the information is biased.

In both cases, discrimination should have been eliminated either by the market forces or better information about actual women's skills. However, in line with the literature claiming

that differences in performance in many fields are small or non-existent (Hyde, 2005), Reuben, Zingales, and Sapienza (2014) experimentally showed that even when the information that women fared equally well in a mathematical task as men was made salient, participants were still more likely to employ men. Past influential studies indicated that, indeed, gender is used as a reliable indicator of competence in the real-market settings, for example in musicians' auditions (Goldin & Rouse, 2000) or for people seeking a job as waiters and waitresses in high-end restaurants (Neumark, 2018) indicating that those who decide about employment are likely to be prone to gender biases. Finally, (Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012) observed a significant implicit biases against female graduates applying for a lab manager job expressed by both male and female faculty members. Female applicants were evaluated systematically as less hireable due to their lower perceived competence. As a consequence, female applicants were offered lower salaries and were less likely to be offered mentoring. The results were confirmed by correspondence studies indicating that members of a disadvantaged group, including women, tend to have lower call-back rates compared, for example, to white males (for an overview, see: Riach & Rich, 2002). In a large vignette study in Germany, Kubler, Schmid, and Stuber (2018) have found significant discriminatory patterns in evaluation of female CVs applying for apprenticeship. Females received lower evaluations than otherwise similar men even controlling for high school grades and absences, particularly in male dominated occupations. Interestingly, the authors observed also that although there is no effect of a company size and professionalism of recruitment process, HR managers discriminated less when supply of applicants was lower, i.e., when apprentices were scarce.

Recent research found evidence that women's non-conforming—i.e., inconsistent with the niceness norm—behaviour involves a penalty (Rudman & Glick, 1999, 2001). The so called backlash effect is commonly related to a trade-off faced by women: either they can be perceived as competent or likeable. In order to increase hireability, women must present themselves as competent but this leads to their lower ratings in terms of interpersonal skills and likeability. Knowing that they are likely to be punished for incongruent behaviour, women face a choice whether to maintain their identity or pursue a career (Rudman & Phelan, 2008). Consequently, the authors claimed, backlash can have widespread effects on hiring, salary negotiations, promotion, leadership evaluation, hostility in working environment and also social punishment (disapproval, mockery, taunting). This strand of research clearly indicates that it is impossible to fully disentangle the effect of prescriptive gender norms from actual preferences (Bertrand, 2018; Petrongolo & Ronchi, 2020). Consequently, employers may be less likely to employ agentic women, because—given the competences are perceived as equal—men seem to be nicer as there is no social punishment for men associated with their perceived competence.

In a field study with MBA students, Bursztyn, Fujiwara, and Pallais (2017) showed that although performance of married and unmarried female students did not differ significantly, unmarried women were more cautious to express their willingness to work longer and travel more often as well as their professional ambitions—including those concerning expected salary—publicly. The authors suggest that women are aware that they can be socially sanctioned for being assertive and ambitious, and thus may adjust their choices accordingly to signal that they prioritise family life over career. As suggested by Blau and Kahn (2017), this behaviour may be reasonable: couples in which women outperform their husbands in terms of earnings have lower marriage satisfaction and are more likely to divorce compared to couples

in which husbands earn more. In line with the social role theory (Eagly & Steffen, 1984), Akerlof and Kranton (2000, 2010) contend that prescriptive norms are at least partially responsible for individuals' occupational choices including women's lower labour market attachment and for the treatment they receive were attempt to take on non-conforming roles and behaviour. Prescriptive norms, thus, may limit individuals' utility from certain labour market choices and lead them to avoid behaviour that could disconfirm stereotypes. Furthermore, knowing that they may be punished for choosing nonconforming behaviour, individuals conform to behaviours that are more socially accepted. For example, Sve-Sderbergh (2019) observed, people may be more willing to work with women who conform to the non-competitive, agreeableness stereotype prescribed for them.

Despite considerable amount of research on gender biases (such as the backlash effect) and discrimination, less is known about moderators that drive these adverse effects. However, for example, Moss-Racusin et al. (2012) found that discriminatory behaviour was moderated by the faculty members' subtle sexist attitudes as measured with the Modern Sexism Scale—i.e., an instrument measuring unintentional negative attitudes towards women. More recently, Kray, Howland, Russell, and Jackman (2017) applied the implicit theory perspective to investigate moderators of the discriminatory patterns such less favourable assessment of female applicants and the backlash effect. Kray et al. (2017) speculated that one important factor is the fact that people have nave epistemologies—implicit theories—explaining whether gender roles are fixed (*entity theory*) or malleable (*incremental theory*). Those who subscribe to the entity theory tend to believe that gender differences are immutable and natural, while incremental theorists claim that to a large extent gender roles are related to social norms and, thus, evolve with society. In a series of studies, they showed that men support the status quo as fair more often than women and that their views were explained by the endorsement of the entity theory of gender roles. Previous research has also shown that entity theories lead to greater reliance on stereotypes in assessments of other people and belief that gender predicts a set of traits which, in turn, are predictive of behaviour and performance (Kray et al., 2017). Specifically, women are essentially seen as caretakers with greater dedication to family life and men as career-oriented breadwinners. Essentialist views are believed to be related to uneven division of household chores and lower males' involvement in childcare, contributing to the occupational choices that result in gender wage gap (e.g., Anker, 1997; Blau & Kahn, 2017). Recently, Skewes, Fine, and Haslam (2018) indicated also that endorsement of essentialist views correlates with greater support for discriminatory practices in the work place inducing people to believe that differential treatment of men and women is fair. Finally, Skewes et al. (2018) found that essentialist views—i.e., beliefs that men and women are immutably and naturally different—moderate some forms of the backlash effect. Female applicants perceived as more power-seeking arouse more moral outrage among essentialists and, generally, male essentialists preferred male, power-seeking applicants.

Consequently, in the labour market settings, greater adherence to the entity theory may lead HR managers to believe that female applicants are less competent and less attached to a job and thus explain why in the recruitment and dismissal processes women are assessed less favourably compared to men. To maintain their worldview, they could be more likely to be involved in biased or motivated forms of reasoning that lead to gender biases, such as the backlash effect, and discriminatory practices. Therefore, we expected that the more people adopt an entity

theory of gender roles (i.e., they believe that gender roles are innate and unchangeable), the more they would be likely to evaluate female applicants as either less worthy (but likeable) or less likeable (but competent) and also to be more likely to dismiss those female employees who show less job engagement. Finally, Kray et al. (2017) found that for men the effect of an implicit gender role theory may be strengthened by an individual's attribution of stereotypically masculine traits. They showed that men primed with entity theories tend to see themselves more in line with stereotypes and ascribe themselves more stereotypically consistent traits, i.e., men tended to see themselves as more masculine. Drawing on the results we sought to explore the moderating role of gender-role orientation—measured with the Bem's Sex Role Inventory (Bem, 1974)—on the relation between implicit gender role theories and evaluation of applicants.

Conceptual framework

The present study focuses on exogenous factors such as discrimination and gender biases and experimentally investigates behaviour of HR managers as a group directly involved in recruitment and dismissal processes with—often—the decisive voice. It seeks to answer questions concerning whether there are implicit gender biases against female applicants and whether these biases affect females' chances of being employed/dismissed and the wages they are offered. To investigate the role of gender biases, possible occurrence of the backlash effect and discrimination among HR managers, we followed the method proposed by Moss-Racusin et al. (2012) who investigated implicit discrimination against female pre-doctoral students in the academia. Applicants were evaluated in terms of competence, likeability, hireability and proposed wage. The authors confirmed that there were subtle gender biases favouring male applicants over otherwise identical females regardless of the faculty members' gender. Inclining them to evaluate male students as more hireable and more competent. Faculty members were also willing to pay male students more and were more likely to offer them mentoring. Unlike Moss-Racusin et al. (2012), the present study focuses on a sample of HR managers who are directly involved in most recruiting and dismissal processes and thus our results can be informative for the general labour market. The study employs a vignette method that allows carefully manipulating selected factors and factor levels and maintaining all other factors constant across the study. Consequently, the method allows disentangling a direct effect of gender on evaluation outcomes while controlling for relevant traits such as age or educational attainment. Another difference compared to the Moss-Racusin et al. (2012) study is that the vacancy we have chosen combines both agentic (managerial) and communal (sales) characteristics to avoid direct associations of the job description with one of the genders.

Although the sample composed of HR managers increases external validity of the study, they are specifically trained not to exhibit gender biases or overt discrimination and thus their responses could be affected by their training and political correctness concerns. On the other hand, implicit biases are prejudices that appear as an automatic response to stereotypical stimulus, often without or prior to conscious control by an individual (Daumeyer, Onyeador, Brown, & Richeson, 2019, p. 1). Previous research highlighted that even though people may not be aware of some of the prejudices they hold (Bertrand, Chugh, & Mullainathan, 2005), due to long-term exposition to gender norms, such biases could affect their behaviour (Uhlmann & Cohen, 2007). For example, in line with the extensive research using Implicit Association Test

(IAT) (Greenwald, McGhee, & Schwartz, 1998), Steiner, Atzmüller, & Su (2016) in a vignette study found that openly stated beliefs on the gender wage gap fairness can be contradicted by their actual responses and that the gap they managed to elicit with their method is consistent with the one measured generally for Austria. Based on experiences with IAT, Bertrand et al. (2005) put forward a hypothesis that implicit attitudes may lead to implicit discrimination. Particularly the authors claimed that because implicit biases require more cognitive control to be defeated when conditions allow for more automaticity in behaviour, biases are more likely to emerge. So, also HR managers in our sample are still likely to exhibit patterns of implicit biases.

Therefore, to investigate whether HR managers' reasoning is affected by tacit gender biases and the impact of these biases on behaviour, the study uses a vignette method that involves a set of systematically differing CV resumes, with different factors (such as gender, education, experience) and factor levels (e.g., indicating which of the applicants is best in terms of education). As Steiner et al. (2016) claimed, such designs increased the validity of conclusions about the causal relation between the manipulation and responses. Apart from increasing validity of hypothetical choices, the advantage of the design is that vignettes allow for controlling for relevant factors and avoiding spill-over effects of the manipulation and making factors such as educational attainment, professional profile, demographics and the vacancy description constant across the conditions and observe causal effects of gender on evaluation in relevant categories. The design also masks the gender issue from the participants as they evaluate CVs of either men or women and thus are less likely to provide socially demanded responses. Therefore, experimental design has an advantage over surveys of statistical data that it allows for disentangling the effect of gender from other potentially confounding effects (Booth & Leigh, 2010). Finally, the design allows to present the task in a form resembling everyday work of HR managers who evaluate applicants for jobs in their firms regularly and thus increase the impression of the task being realistic to the participants themselves allowing for more automatic responses revealing implicit biases they may have against female applicants.

In line with Moss-Racusin et al. (2012), we expected to observe discriminatory patterns such that, everything other constant, women will be perceived as less hireable and competent but more likeable (**H1a/b/c**). Consequently, women stereotypically viewed as less worthy applicants would receive lower wage offers than otherwise identical male applicants (**H2**). Consistent with the statistical discrimination theory we expected that the lower females' hireability will be affected by their lower perceived competence (**H3**). In line with Kray et al. (2017), we expect that holding a fixed theory of gender roles, would contribute to greater biases against women (**H4**). Finally, we speculated that the effect—for men—would be strengthened by their identification with stereotypically masculine traits measured by Bem Sex Role Inventory (a 12-item, short version) (**H5**). Furthermore, we also investigated whether women—due to irregularities in their professional profile and more frequent absences—would be more likely to be dismissed when a company faces financial crisis.

Methods

Participants and design

A total of 155 HR professionals (97 women) in age 22-70 participated in the study ($M_{age} = 41.48$, $SD_{age} = 9.57$). Participants were most entrepreneurs (33.5%) and employees (59.4%) in micro business (1-9 employees; 40.0%); small business (10-49 employees; 21.9%); medium business (50-249 employees; 15.5%), and large business (more than 250 employees; 15.5%); 25.2% of companies were focused on production and 67.7% on service.

Participation was voluntary and anonymous. Data collection was through an online survey hosted on Qualtrics and data were collected by an external agency (chosen in a tender and compliant with the international ESOMAR code). Participants were selected based on their experience in employment process and gender—although we wanted a sample consistent with the general gender composition of the occupation, the decisive inclusion criterion was experience, not gender.

Measurement and procedure

After reading and signing the informed consent form, the participants completed seven demographic questions. Then we showed participants cover story and asked them to choose the best person for the position of regional manager in winery. Participants were randomly divided into two groups: one group assessed CVs presented as man applicants ($n = 77$; 53 women), other group assessed the same CVs but presented as belonging to woman applicants ($n = 78$; 44 women). Apart from the applicants' gender, the CVs in both groups were identical (see Table 1 for factors and factor levels used in the study). Names of the applicants were selected in accordance with the list of the most common surnames in Slovakia. Consequently, all applicants have non-Roma sounding names which allowed us to avoid the confounding effect of ethnicity. In the next step, all participants were merged and again randomly divided into two groups for the next task in which they had to choose one of the 6 employees who would be fired. One group choose from the list A, second group from the list B – in both lists there were the same “people” just the sex has been changed. Finally, all participants completed Implicit Gender Role Theory questionnaire (IGR) and Bem Sex Role Inventory (BSRI). The materials included one control question to eliminate random responses (participants had to click on a specific option: ‘Now click response 5.’).

Table 1 Vignette factors and factor levels

Factor	Factor levels	
gender	2 levels	<i>male/female</i>
age	3 levels	<i>35, 36, 37 years</i>
educational attainment	3 levels	<i>3 universities with different quality</i>
professional experience	3 levels	<i>8 years and small team, 10 years and medium team, 11 years and big team</i>
vocational training	3 levels	<i>considerable and job-related, average, none</i>

Demographic characteristics. All participants stated the age, sex, experience in HR, position on the labour market (*student, entrepreneur, employee, maternity leave, retirement, unemployed, other*), company size (*micro, small, medium, large*), legal form (*state enterprise, contributory organization, budget organization, cooperative, trading company, enterprise of*

an individual, an enterprise with foreign investment, third sector), and business focus (production, service).

Assessment of applicants. We created cover story for participants¹ and showed them three CVs of fictive applicants. Each applicant was described by name, age, address, contact, education, working experiences, courses and workshops, language skills, key skills, interests, and references from previous employer. All three applicants were aged 30-40. The applicants differed in terms of their experience, education and vocational trainings with one being the best and one the worst. We prepared two identical versions of CVs – one set with men names and one set with women names (see Appendix A). Half of the participants assessed men set of CVs and half assessed women set of CVs by eleven questions. For each of three applicants (regardless the sex) we computed mean for competency (3 items), hire-ability (3 items), and likeability (3 items). Last two questions were about offered starting month wage and average month wage after the probationary period; details of descriptive statistics are in Table 2.

Choice of employee to be fired. To measure whether women would be more likely to be fired when a company faces financial crisis, short descriptions of six employees (described by sex, age, years in company, frequency of absences) were created and participants had to choose one most suitable to be fired. We created two identical forms of the list of employees (3 men, 3 women) except the sex – sexes were exchanged. Participants were divided into two groups; one group choose one employee to be fired from the form A, second group choose from the form B.

Implicit gender roles. A 10-item questionnaire Implicit gender role (IGR) theory adopted from Kray et al. (2017) was used to measure implicit gender role theory. Participants assess fixedness of gender roles (example of standard item: “I think that men and women will always have different social roles”, example of reversed item “As society progress, men and women will eventually occupy similar roles in society”) on a 6-points scale (1=strongly disagree; 6=strongly agree), five items are reverse-scored. The mean score was computed ($M = 3.50$; $SD = 0.94$; $\omega = .862$) and the higher mean score indicated greater endorsement of the belief that gender roles are fixed and immutable.

Masculinity and femininity. We used the short versions of the Bem’s Sex Role Inventory (BSRI, Bem, 1974) measuring femininity and masculinity. Participants had to assess themselves on 12 attribution of traits indicative of gender roles using a 6-points scale (1=never; 6=always). The mean scores for masculinity ($M = 4.53$; $SD = 0.79$; $\omega = .875$) and femininity ($M = 4.48$; $SD = 0.83$; $\omega = .882$) were computed; the higher score indicated the stronger masculinity and femininity.

Results

¹ *Imagine that your colleague had to go to surgery and would be unable to work for a few weeks. Your task is to complete two of his unfinished tasks. The first task is to hire regional manager for the winery with nationwide coverage. Your colleague evaluated all CVs and made brief notes about all applicants. Now, you should choose the best candidate. We will show you 3 CVs, which your colleague has shortlisted. You have to evaluate each applicant with a few questions and in the end you will choose the one that you think is the most suitable.*

Descriptive statistics of all measured variables and differences between men and women applicants' assessment are in Table 2 (and in Appendix B for medium and worse applicant).

Table 2 Descriptive statistics of measured variables and differences between assessment of men and women applicants

		men applicants				women applicants							
CV		N	ω	M	SD	N	ω	M	SD	t	df	p	d
best	competence	77	.910	5.74	0.93	78	.992	5.73	1.08	0.059	153	.953	
	hire-ability	77	.893	5.51	1.08	78	.987	5.67	1.02	-0.949	153	.344	
	likeability	77	.879	5.41	0.88	78	.990	5.61	0.94	-1.403	153	.163	
	starting wage	77	-	1230.39	451.86	78	-	1055.77	295.64	2.845	152	.005	.459
	average wage	77	-	1498.55	531.91	78	-	1314.03	361.49	2.513	151	.013	.406

Note: N – number, ω – reliability (omega), M – mean, SD – standard deviation, t – t-test value, df – degree of freedom, p – significance, d – Cohen's d

First, we analysed whether women would be evaluated as less competent, likeable and hireable (everything other constant), and will receive lower wage offers than otherwise identical men (H1-2). Independent sample t-test revealed that there were no significant differences in assessment of competence, likeability or hire-ability between identical top man and woman applicants, but there were significant differences in wage offers (Graph 1; Table 1). HR professionals offers a man 174.63 Euro more as starting month wage ($t = 2.845$; $p = .005$; $d = .459$) and 184.53 Euro more as month wage after the probationary period ($t = 2.513$; $p = .013$; $d = .406$) than an identical woman. Results for medium and worse applicants are in Appendix B.

Graph 1 Differences in wage offers to man and woman applicants (* $p < .050$; ** $p < .010$)

Next, following strong relationships of hire-ability correlated both with competence and likeability (Table 3)—regardless whether the applicant was man or woman—we conducted the regression analysis to verify the effect of competence on hire-ability of women applicants (H3). A significant regression equation was found ($F(1,76) = 244.759$, $p < .001$), with R^2 of .763. Women applicants' hire-ability is equal to $0.950 + 0.823$ (competence) points when hire-ability is measured also in points. Women applicants' hire-ability increased 0.823 points for each point of competence. Results were very similar also for men applicants ($F(1,75) = 183.309$, $p < .001$, with R^2 of .710). Men applicants' hire-ability is equal to $-0.113 + 0.979$ (competence) points when hire-ability is measured also in points. Men applicants' hire-ability increased 0.979 points for each point of competence.

Table 3 Correlations between hire-ability, competence and likeability

	<i>women applicants</i>		<i>men applicants</i>	
	hire-ability	likeability	hire-ability	likeability
competence	.875**	.817**	.842**	.729**
hire-ability		.870**		.756**

Note: **correlation is significant at the .01 level

Next, we verified whether the more men are adopting an entity theory of gender roles and the more masculine they are, the more they are likely to fall victims to cognitive biases (stereotyping) in their perceptions of women and, consequently, to discriminate female applicants (H4-5). HR men professionals did not assess top man and woman applicants

differently in the competence, likeability, hire-ability nor wage offers. There were also no relationships between entity theory of gender roles, masculinity and the discrimination of top woman applicant (nor in the favour of top man applicant), with two exceptions. First, stronger entity theory of gender roles related to higher assessment of top woman applicant as hireable ($r = .368$; $p = .032$), and second, femininity of HR men professionals correlated to higher assessment of top woman applicant as hireable ($r = .362$; $p = .035$) and as likeable ($r = .433$; $p = .011$). Similar results were also for medium and worse applicants (Appendix B).

Interesting findings were in the group of HR women professionals. There were significant differences in offered wage: HR women professionals offered a top man applicant significantly higher wage than an otherwise identical woman (starting wage: 1,224.23€ versus 1,012.50€; $t = 2.736$; $p = .007$; $d = .560$; average wage: 1,502.12€ versus 1,264.77€; $t = 2.532$; $p = .013$; $d = .519$). Nevertheless, entity theory of gender roles and masculinity/femininity did not relate to the discrimination of top woman applicant (nor to the favour of top man applicant).

Because of differences between man and woman applicants and different results in the group of men and women HR professionals, a two-way ANOVA was conducted on the influence of HR professionals' sex (men versus women) and applicants' sex (men versus women) on the assessment of applicants (competence, hire-ability, likeability, and starting and average wage offers). For the best applicant, the applicants' sex had significant effect both on starting and average wage offers: there were significant differences between men and women applicants in offered starting wage ($F(1,149) = 7.176$; $p = .008$) as well as in average wage ($F(1,149) = 5.140$; $p = .025$) in favour of man (for means see Table 2). What wage you will be offered does not depend on who is your HR, it depends on whether you are man or woman. Results for medium and worse applicants are in Appendix B.

Finally, we tested whether women would be more likely to be fired when a company faces financial crisis. In the open question in which we asked the reason to fire applicant, the frequency of absences (for 77.8%) and years in company (43.1%) has proven to be the main criterion; weaker decisive criteria were young age (for 8.9%) and that employee is a man (for 8.9%).

HR professionals identified three applicants to be fired (highlighted in the Table 4). In all three cases, participants choose more often men applicants to be fired and explained their choices by the frequency of absence, years in company, age and the sex (for example “*He is a man, he can easily find a new job.*”, “*He—as a man—has too much absences.*”).

To examine whether holding implicit theories relate to decisions, we extracted two groups of participants – those with low implicit theories (lowest quartile in the IGR; score less than 2.9) and those with high implicit theories (highest quartile in the IGR; score more than 4.1) and compare them in their choices; there were no differences between HR professionals with low and high implicit theories in which applicant would they fire ($\chi^2 = 3.672$, $p = .452$).

Table 4 Choice of an employee to fire

applicant	form A, n = 77		form B, n = 78	
	sex, %	reasoning	sex, %	reasoning
36, 6 years in Co., almost no absences	w, 0.0%		m, 1.3%	
37, 7 years in Co., almost no absences	m, 0.0%		w, 0.0%	
35, 5 years in Co., some absences	w, 1.3%		m, 12.8%	<i>absences, fewer years in Co., a man, young</i>

36, 6 years in Co., some absences	m, 2.6%		w, 1.3%	
37, 7 years in Co., frequent absences	w, 9.1%	<i>absences</i>	m, 41.0%	<i>absences, fewer years in Co., a man (too much absences), young</i>
38, 5 years in Co., frequent absences	m, 87.0%	<i>absences, fewer years in Co., a man</i>	w, 43.6%	<i>absences, fewer years in Co., young</i>

Note: w – woman, m – man

Discussion

The present study contributes to the literature by investigating tacit gender biases exhibited by HR managers, i.e., people who often have a decisive voice in recruitment and dismissal processes. The specific sample together with an experimental design allows for drawing conclusions about the causes of the gender gap in the labour market and inform the debate about possible channels through which both genders could be disadvantaged in the labour market. Importantly, the study also suggests that it is impossible to account for the entire gender wage gap and other labour market disparities without taking into account tacit forms of discrimination and gender biases that lead to differential treatment of male and female employees. Our results indicate that gender biases can occur in two critical stages of employment—recruitment and dismissal of employees and show that the discriminatory mechanisms tend to be different for men and women—women being more likely to be directly discriminated with lower wage offers while counter-stereotypical men experience a backlash effect. Apart from finding a direct evidence that a considerable portion of the gender wage gap is attributable to discrimination—as opposed to productivity and preferences—the most important contribution of the paper includes the finding concerning a backlash effect punishing men for lower educational attainment and showing feminine working patterns. The findings suggest that the women’s labour market situation is complex and, paradoxically, their career prospects are affected also by norms and expectations requiring men to behave in a masculine and career-oriented way.

We found no support for biases affecting females’ hireability. In case of this particular managerial position, women were considered equally competent and hireable as male applicants (**H1a/b**; **H2**). The fact that male and female applicants were evaluated similarly in terms of their competence and hireability speaks against statistical discrimination as a potential explanation of the effect and suggests that productivity may not be the main concern when comparing male and female applicants. The reason may be that we have carefully selected a job description that would not evoke up front associations with one of the genders—the managerial (agentic) aspect of our vacancy is balanced by its requirement for communal characteristics as, necessarily, sales involve frequent interpersonal contacts and good communication skills stereotypically linked with femininity.

However, although men and women were perceived as equally competent and hireable at all three quality levels, we found that women still receive lower wage offers (**H2**). The differences are large and indicate that women are likely to experience discrimination when applying for a job, i.e., their work is evaluated and priced differently compared to otherwise identical males. These findings provide an important information in the debate about gender wage gap confirming previous findings that the gap starts with an employment and increases with time (Grund, 2015). The findings also raise concerns about possibilities to explain the persistent gender wage gap and combat residual barriers to gender equality without including

discrimination in the analysis. It seems that the ratio of gender wage gap unexplained by individual differences (human capital, years of experience, motherhood penalty etc.) may be attributable to direct discrimination (Blau & Kahn, 2017). The scope of the wage proposals gap in our study was lower (between 7 and 15 percent) than the raw gender wage gap for Slovakia (about 20% according to GEI). However, we have observed two interesting patterns related to the gap. First, the greatest difference occurred for the best pair of the applicants and the smallest for the worst pair. The wider gap for better qualified applicants indicates that men achieve an additional premium for being perceived as highly skilled. Second, we found that the gap tends to decrease for the wage proposed following the trial period, suggesting that there is greater uncertainty concerning female applicants even though they were perceived as equally competent. Nevertheless, after they prove they are valuable employees, they can expect their wages to increase just as much as men's. So, they would still receive significantly less than their male counterparts.

One of the reasons for lower wage proposals—we did not investigate directly in our study—could be women's lower reservation wage, i.e., the minimum wage an individual is willing to accept for a job. Previous research indicated that a considerable portion of the starting wage gap may be due to different reservation wages of men and women (e.g., Caliendo, Lee, & Mahlstedt, 2017). Therefore, in an additional survey performed within a couple of days after the present study, we explored whether the effect may be related to lower wage expectations of women in the relevant group of the Slovak population. We asked a sample of 380 adult Slovaks (200 female) about wages they would be willing to accept for the vacancy we had investigated in the main study (more in Appendix C). We found no statistically significant gender differences in the reservation wage. On average, women were willing to accept 1521.88 euro compared to 1638.63 acceptable for men. The difference was not statistically significant, indicating that both men and women have similar expectations about compensation when applying for the same or similar jobs. However, consistently with the gender wage gap literature, the findings also confirmed that women in the sample earn less (raw gender wage gap). The findings are in line with Sve-Sderbergh (2019) who in a large field study among over 38,000 Swedish graduates, established that even if women negotiated wages, they received lower offers than similar males for similar requests and were less likely to receive the salary they requested. The gap increased with the job profitability—the better paid the job, the less women were likely to receive compared to men. Finally, it is also possible that lower offers for female applicants were related to the female managers own lower salaries that served as an anchor. However, the fact that the offers they made were significantly lower only for female applicants, indicates that the proposals cannot be attributed to the female HR managers' own earnings serving as a benchmark.

Interestingly, unlike previous studies (Kray et al., 2017; Moss-Racusin et al., 2012; Skewes et al., 2018), we have found that the effect is not moderated by implicit theories concerning gender roles and the managers gender-role orientation (**H4-5**). Regardless of their beliefs about malleability or fixedness of gender norms and their masculinity, HR managers still offered lower wages to female applicants. This result may be due to the sample composition since Kray et al. (2017) found that implicit role theories affect more men's, as compared to women's, attitudes. However, taking into account that human resources are slightly feminised occupation, our findings provide valuable and reliable observation about possible real-life outcomes and

indicate that for professionals with experience in recruitment process, implicit prejudices against women have limited impact on the evaluation. Furthermore, our results contradict previous findings that in mixed and female-dominated occupations, men are more likely to be discriminated (Booth & Leigh, 2010). Although the present study applied a different measure of discrimination (evaluation of hireability, competence and wage proposals compared to call back rates), we have found that women still are at greater risk of being discriminated. However, the results are in line with research indicating that female-dominated committees are less likely to support female applicants in the judiciary system and academia (B. M. Bagues, Sylos-labini, & Zinovyeva, 2017; M. F. Bagues & Esteve-Volart, 2010).

Our study brings also insights into the impact of gender norms on the males' labour market outcomes. Contrary to previous research, we found no evidence of backlash effect disadvantaging women. The more objectively and subjectively competent the female applicants were, the more likeable they were perceived (**H1c**, see results). However, in Task 1 male applicants were seen as less likeable only when their educational attainment and professional history were not the highest. In Task 2, we have found that during the economic crisis and in a gender-balanced environment, HR managers are more likely to dismiss male employees compared to otherwise identical females. Interestingly, when asked about reasons for dismissal, the managers indicated that male employees selected to be dismissed showed working patterns resembling that of women: they had numerous absences caused by caring responsibilities or more days of sick leave. Together with the findings about average males being less likeable, the study shows that there are strong gender norms requiring men to pursue their careers even at a cost of family life and punishing them for counter stereotypical behaviour. Specifically, for women it is accepted that they will enter and leave the labour market frequently: first for childbirth and then due to caring responsibilities (related to both children and senior family members). It is expected that women will seek for employments that allow for greater flexibility in terms of working hours (part time jobs, home office) and provide greater work-life balance. For men the acceptance for similar behaviour is much lower (Cukrowska-Torzewska & Lovasz, 2020; Kleven, Landais, & Sogaard, 2019). Indeed, Slovakia is among the most conservative countries in terms of work division (according to GEI). 51 and 48 percent of respondents, respectively, support claims that women have comparative advantage in domestic tasks and that fathers, unlike mothers, should be rather career- than family-oriented (Cukrowska-Torzewska & Lovasz, 2020).

Although backlash effect usually is discussed in the context of women discrimination and remains understudied in the context of men (Moss-Racusin, Phelan, & Rudman, 2010), the present study shows evidence for the existence of a backlash effect disadvantaging males who are seen as less successful and more family-oriented. (Rudman, Moss-racusin, Phelan, & Nauts (2012) suggested that gender norms have also strong proscriptive aspect indicating not only how people ought to behave but also how they should not behave. The authors suggested that one of the reasons for backlash may be status incongruence. Although their observations applied mainly to female leaders, recent studies provide also support for the hypothesis that men who violates norms and thus endanger social hierarchy face the risk of backlash. Moss-Racusin et al. (2010) found that atypical (modest) men violating proscriptive (e.g., weakness and uncertainty) as well as prescriptive norms (e.g., confidence and ambition) are likely to encounter backlash. The authors linked the effect with the status-incongruence hypothesis

(SIH) indicating that individuals violating gender norms are perceived as deviants and thus punished. Recently, Skewes et al. (2018) observed that non-power seeking men are evaluated less favourably than men conforming to the masculine norm. Finally, Rudman and Mescher (2013) found that male employees who requested family leave were perceived as weaker and more feminine (understood as a negative characteristic for a man) as well as less ambitious and competitive. As a consequence, those who requested the leave were labelled as poor workers and omitted when rewards were distributed and were more likely to be demoted or dismissed. The findings are consistent with the present study result and indicate that employees who do not meet exactions of being the best worker are penalize for status-incongruent behaviour. In line with these findings, we have also found that atypical men are likely to be perceived as deficient and punished both socially (lower likeability) and economically (greater probability of being dismissed). The findings have potentially significant consequences for men seeking the work-life balance indicating that they are at risk of being judged according to double standards assigning family orientation to women and career orientation to men.

One of the limitations of the present study, is the fact that we did not provide information about marital status or children of the applicants. We skipped this information from CVs resumes, because it is uncommon in Slovak conditions to provide such information during recruitment and thus CVs would look unnatural, possibly raising suspicions of the HR managers concerning the actual aim of the study. Previous research demonstrated that both having children and perceived fertility may lead to discrimination against female applicants in the recruitment process. For example, Becker, Fernandes, and Wiechselbaumer (2019) observed that younger, married and childless women are disadvantaged when applying for part time jobs compared to any other female group but not when they apply for full time jobs. The fact that females in our study were perceived as equally hireable may be related thus to the applicants age. Petit (2007) has found no discriminatory patterns in call back rates for females aged 37—as compared to similarly aged men—applying for jobs in the French financial sector and related the finding, among others, to their family situation. In the present study the applicants were all aged between 35 and 38 indicating that female applicants exceeded the age of greatest likelihood of becoming pregnant—the average age of Slovak women giving birth is slightly below 31 (Eurostat). Finally, in line with Kubler et al. (2018) findings, it is also possible that when supply of employees is low—employees market—HR managers are less likely to discriminate against women. Although we collected the data already after the COVID-19 crisis started (April 2020), unemployment rates then increased only slightly, from 5.19 to 6.57 percent (according to the statistics published monthly by the Central Office of Labour, Social Affairs and Family) and thus the managers' preferences for discrimination may still reflect conditions of the employee's market prior to the crisis.

Conclusions

The present study provides also findings relevant for policies aiming at the level playing field in the labour market. If the labour market continues to punish men for status incongruent behaviour, they will be less supportive of policies fostering more equal division of non-market responsibilities between men and women. With the backlash against men showing more female-like working patterns and general acceptance for women leaving labour market frequently, the traditional division of male and female responsibilities is likely to continue. Unless men are

granted the freedom to take on more caring and household responsibilities, women will continue to incur disproportioned costs of their double shifts. Thus, on the road to gender equality it is important not only to support women in their professional careers but also to encourage men to take on more roles traditionally ascribed to women, particularly those related to non-market work and to remove gender labels from the occupations (e.g., Croft, Schmader, Block, & Baron, 2014; Kray et al., 2017). As Goldin (2014) and Skewes et al. (2018) observed markets disproportionally value masculine working patterns disadvantaging all groups other than conforming males.

Together with females' lower starting wages, the backlash against family oriented men may strengthen comparative advantage of fathers in the labour market and thus induce women to stay longer at home, look for more flexible employment in lower paid sectors or opt out from the labour market permanently after having children. As a result, contributing also to the raw gender wage gap and lower share of employed women. Apart from fairness considerations, if we assume that the talent pool is equally distributed among men and women, discriminatory practices inclining women to opt out from the labour market, limit the market efficiency. IMF estimates that full gender equality has a potential to contribute as much as 27 percent to the global GDP. According to Hsieh, Hurst, Jones, and Klenow (2019) between 1960 and 2010, the U.S. economy gained from 20 to 40 percent in the market output per capita from improved allocation of workers into occupations. Not without significance is the observation by Croft et al. (2014) suggesting that more egalitarian division of household chores between mothers and fathers, increases girls' professional aspirations and thus may contribute to combating gender biases related to the labour market. This indicates that a more gender-neutral view of household chores and caring activities may support younger generation of boys and girls in pursuing their aspirations without sacrificing work-life balance.

Finally, subtle biases are particularly dangerous as they are viewed as less concerning and thus actions aimed at diminishing implicit forms of discrimination may enjoy lower social support (Daumeyer et al., 2019). Consequently, discrimination is likely to perpetuate in tacit forms preserving residual gender gaps in the labour market. There are various measures that could be adopted in levelling the playing field for men and women, including affirmative actions in a form of political and organizational quotas, family-friendly policies and gender-neutralizing of childcare. One solution, suggested by Bertrand (2018) is parental leave reserved for fathers that cannot be shared or exchanged with a mother. If a father failed to take the leave, it will be lost. However, evidence concerning effects of the measures is mixed. For example, Blau and Kahn (2017) indicated that in the US, anti-discriminatory law alone has had only small, although positive, effect on reducing the gender disparity. Quotas have shown to have limited influence outside organizations obliged to adopt them (Bertrand, 2018), men are still less likely to request family leaves (Rudman & Mescher, 2013) possibly due to the backlash concerns and family-friendly policies, such as longer and paid maternity leaves may have negative effects on women's earnings (e.g., Cukrowska-Torzewska & Lovasz, 2020). Regardless of the strategy chosen, one remains certain: without actions directly aiming at changing persistent gender stereotypes and systematic removal of biases against individuals deviating from prescriptive norms, institutional support and policies are likely to be ineffective and the progress towards equality of chances slow. Men and women will still shy away from counter-stereotypical behaviour to avoid punishment. Without increasing social acceptance for

behaviour counter to gender norms, both men and women will continue to experience discriminatory practices in the labour market and their choice portfolio will remain limited with detrimental results for men, women and for the entire economy.

Literature

- Akerlof, G. A., & Kranton, R. E. (2000). Economics and identity. *The Quarterly Journal of Economics*, 115(3), 715–753.
- Akerlof, G. A., & Kranton, R. E. (2010). Identity Economics How our identities shape our work, wages, and well-being. In *Journal of Chemical Information and Modeling*. <https://doi.org/10.1017/CBO9781107415324.004>
- Amado, C., Santos, S., & Sao Jose, J. (2018). Measuring and decomposing the gender pay gap: A new frontier approach. *European Journal of Operational Research*, 271(1), 357–373. <https://doi.org/10.1016/j.ejor.2018.05.023>
- Anker, R. (1997). Theories of Occupational Segregation by Sex: An Overview. *International Labour Review*, 136(3), 315–339.
- Arrow, K. J. (1971). The theory of discrimination. *Discrimination in Labor Markets*, pp. 3–33.
- Bagues, B. M., Sylos-labini, M., & Zinovyeva, N. (2017). Does the Gender Composition of Scientific Committees Matter? *American Economic Review*, 107(4), 1207–1238.
- Bagues, M. F., & Esteve-Volart, B. (2010). Can Gender Parity Break the Glass Ceiling? Evidence from a Repeated Randomized Experiment. *The Review of Economic Studies*, 77, 1301–1328. <https://doi.org/10.1111/j.1467-937X.2009.00601.x>
- Becker, G. S. (1957). *The Economics of Discrimination*. Chicago: Chicago University Press.
- Becker, S., Fernandes, A., & Wiechselbaumer, D. (2019). Discrimination in hiring based on potential and realized fertility: Evidence from a large-scale field experiment. *Labour Economics*, 59, 139–152.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155–162. <https://doi.org/10.1037/h0036215>
- Bertrand, M. (2018). Coase Lecture - The Glass Ceiling. *Economica*, 85, 205–231. <https://doi.org/10.1111/ecca.12264>
- Bertrand, M., Chugh, D., & Mullainathan, S. E. M. (2005). Implicit Discrimination. *American Economic Review*, 95(2), 94–98.
- Blau, F. D., & Kahn, L. M. (2017). The Gender Wage Gap: Extent, Trends, and Explanations. *Journal of Economic Literature*, 55(3), 789–865.
- Bonin, H., Dohmen, T., Falk, A., Huffman, D., & Sunde, U. (2007). Cross-sectional earnings risk and occupational sorting: The role of risk attitudes. *Labour Economics*, 14(6), 926–937. <https://doi.org/10.1016/j.labeco.2007.06.007>
- Booth, A., & Leigh, A. (2010). Do employers discriminate by gender? A field experiment in female-dominated occupations. *Economics Letters*, 107(2), 236–238. <https://doi.org/10.1016/j.econlet.2010.01.034>
- Bursztyn, L., Fujiwara, T., & Pallais, A. (2017). ‘Acting Wife’: Marriage Market Incentives and Labor Market Investments. *American Economic Review*, 107(11), 3288–3319.
- Caliendo, M., Lee, W., & Mahlstedt, R. (2017). The Gender Wage Gap and the Role of Reservation Wages: New Evidence for Unemployed Workers. *Journal of Economic Behavior and Organization*, 136, 161–173. <https://doi.org/10.1016/j.jebo.2017.02.011>
- Chapman, S. J., & Benis, N. (2017). Ceteris non paribus: The intersectionality of gender, race, and region in the gender wage gap. *Women’s Studies International Forum*, 65, 78–86. <https://doi.org/10.1016/j.wsif.2017.10.001>
- Croft, A., Schmader, T., Block, K., & Baron, A. S. (2014). The Second Shift Reflected in the

- Second Generation : Do Parents ' Gender Roles at Home Predict Children ' s Aspirations ? *Psychological Science*, 25(7), 1418–1428.
<https://doi.org/10.1177/0956797614533968>
- Croson, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature*, 47(2), 1–27. <https://doi.org/10.1257/jel.47.2.448>
- Cukrowska-Torzewska, E., & Lovasz, A. (2020). The role of parenthood in shaping the gender wage gap – A comparative analysis of 26 European countries. *Social Science Research*, 85. <https://doi.org/10.1016/j.ssresearch.2019.102355>
- Daumeyer, N. M., Onyeador, I. N., Brown, X., & Richeson, J. A. (2019). Consequences of attributing discrimination to implicit vs. explicit bias. *Journal of Experimental Social Psychology*, 84.
- Dohmen, B. T., & Falk, A. (2011). Performance Pay and Multidimensional Sorting: Productivity, Preferences, and Gender. *The A*, 101(2), 556–590.
- Dohmen, T., Falk, A., Huffman, D., & Sunde, U. (2012). The intergenerational transmission of risk and trust attitudes. *Review of Economic Studies*, 79(2), 645–677.
<https://doi.org/10.1093/restud/rdr027>
- Eagly, A. H., & Steffen, V. J. (1984). Gender Stereotypes Stem From the Distribution of Women and Men Into Social Roles. *Journal of Personality and Social Psychology*, 46(4), 735–754.
- Francesconi, M., & Parey, M. (2018). Early Gender Gaps Among University Graduates. *European Economic Review*, 109, 63–82.
<https://doi.org/10.1016/j.euroecorev.2018.02.004>
- Gneezy, U., Niederle, M., & Rustichini, A. (2003). Performance in competitive environments: Gender differences. *Quarterly Journal of Economics*, 118(3), 1049–1074.
<https://doi.org/10.1162/00335530360698496>
- Goldin, C. (2014). A Grand Gender Convergence: Its Last Chapter. *American Economic Review*, 104(4), 1091–1119.
- Goldin, C., & Rouse, C. (2000). Orchestrating Impartiality: The Impact of “Blind” Auditions on Female Musicians. *The American Economic Review*, 90(4), 715–741.
- Greenwald, A., McGhee, D., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464–1480.
- Grund, C. (2015). Gender pay gaps among highly educated professionals — Compensation components do matter. *Labour Economics*, 34, 118–126.
<https://doi.org/10.1016/j.labeco.2015.03.010>
- Hsieh, C.-T., Hurst, E., Jones, C., & Klenow, P. (2019). THE ALLOCATION OF TALENT AND U . S . ECONOMIC GROWTH The copyright to this Article is held by the Econometric Society . It may be downloaded , printed and re- produced only for educational or research purposes , including use in course packs . No download. *Econometrica*, 87(5), 1439–1474.
- Hyde, J. S. (2005). The gender similarities hypothesis. *American Psychologist*, 60(6), 581–592. <https://doi.org/10.1037/0003-066X.60.6.581>
- Jaeger, D. A., Dohmen, T., Falk, A., Huffman, D., Sunde, U., & Bonin, H. (2010). Direct evidence on risk attitudes and migration. *The Review of Economics and Statistics*, 92(3), 684–689.
- Kleven, H., Landais, C., & Søgaaard, J. (2019). Children and Gender Inequality: Evidence from Denmark. *American Economic Journal: Applied Economics*, 11(4), 181–209.
- Klinowski, D. (2019). Selection into self-improvement and competition pay: Gender, stereotypes, and earnings volatility. *Journal of Economic Behavior and Organization*, 158, 128–146.

- Kray, L. J., Howland, L., Russell, A. G., & Jackman, L. M. (2017). The Effects of Implicit Gender Role Theories on Gender System Justification: Fixed Beliefs Strengthen Masculinity to Preserve the Status Quo. *Journal of Personality and Social Psychology*, 112(1), 98–115.
- Kubler, D., Schmid, J., & Stuber, R. (2018). Gender Discrimination in Hiring Across Occupations: A Nationally-Representative Vignette Study. *Labour Economics*, 55, 215–229. <https://doi.org/10.1016/j.labeco.2018.10.002>
- Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *PNAS*, 109(41), 16474–16479. <https://doi.org/10.1073/pnas.1211286109>
- Moss-Racusin, C. A., Phelan, J. E., & Rudman, L. A. (2010). When Men Break the Gender Rules: Status Incongruity and Backlash Against Modest Men. *Psychology of Men and Masculinity*, 11(2), 140–151. <https://doi.org/10.1037/a0018093>
- Neumark, D. (2018). Experimental Research on Labor Market Discrimination. *Journal of Economic Literature*, 56(3), 799–866.
- Pearlman, J. (2018). Gender differences in the impact of job mobility on earnings: The role of occupational segregation. *Social Science Research*, 74, 30–44. <https://doi.org/10.1016/j.ssresearch.2018.05.010>
- Pearlman, J. (2019). Occupational Mobility for Whom?: Education, Cohorts, the Life Course and Occupational Gender Composition 1970–2010. *Research in Social Stratification and Mobility*, 59, 81–93. <https://doi.org/10.1016/j.rssm.2018.11.009>
- Petit, P. (2007). The effects of age and family constraints on gender hiring discrimination: A field experiment in the French financial sector. *Labour Economics*, 14, 371–391. <https://doi.org/10.1016/j.labeco.2006.01.006>
- Petrongolo, B., & Ronchi, M. (2020). Gender gaps and the structure of local labor markets. *Labour Economics*, 64(2020). <https://doi.org/10.1016/j.labeco.2020.101819>
- Phelps, E. (1972). The Statistical Theory of Racism and Sexism. *The American Economic Review*, 62(4), 659–661.
- Reuben, E., Sapienza, P., & Zingales, L. (2014). How stereotypes impair women's careers in science. *PNAS*, 111(12), 4403–4408.
- Riach, P. A., & Rich, J. (2002). FIELD EXPERIMENTS OF DISCRIMINATION IN THE MARKET PLACE *. *The Economic Journal*, 112(483), 480–518.
- Rudman, L. A., & Glick, P. (1999). Feminized Management and Backlash Toward Agentic Women The Hidden Cost to Women of a Kinder, Gentler Image of Middle Managers. *Journal of Personality and Social Psychology*, 77(5), 1004–1010.
- Rudman, L. A., & Glick, P. (2001). *Prescriptive Gender Stereotypes and Backlash Toward Agentic Women*. 57(4), 743–762.
- Rudman, L. A., & Mescher, K. (2013). Penalizing Men Who Request a Family Leave: Is Flexibility Stigma a Femininity Stigma? *Journal of Social Issues*, 69(2), 322–340.
- Rudman, L. A., Moss-racusin, C. A., Phelan, J. E., & Nauts, S. (2012). Journal of Experimental Social Psychology Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology*, 48(1), 165–179. <https://doi.org/10.1016/j.jesp.2011.10.008>
- Rudman, L. A., & Phelan, J. E. (2008). Backlash effects for disconfirming gender stereotypes in organizations. *Research in Organizational Behavior*, 28, 61–79. <https://doi.org/10.1016/j.riob.2008.04.003>
- Säve-Söderbergh, J. (2019). Gender gaps in salary negotiations: Salary requests and starting salaries in the field. *Journal of Economic Behavior and Organization*, 161, 35–51. <https://doi.org/10.1016/j.jebo.2019.01.019>
- Skewes, L., Fine, C., & Haslam, N. (2018). Beyond Mars and Venus: The role of gender

- essentialism in support for gender inequality and backlash. *PLoS ONE*, 13(7), 1–17. <https://doi.org/10.1371/journal.pone.0200921>
- Steiner, P. M., Atzmüller, C., & Su, D. (2016). Designing Valid and Reliable Vignette Experiments for Survey Research: A Case Study on the Fair Gender Income Gap. *Journal of Methods and Measurement in Social Sciences*, 7(2), 52–94.
- Uhlmann, E. L., & Cohen, G. L. (2007). “I think it , therefore it’s true”: Effects of self-perceived objectivity on hiring discrimination. *Organizational Behavior and Human Decision Processes*, 104, 207–223. <https://doi.org/10.1016/j.obhdp.2007.07.001>

Appendix A (instrument)

Task 1: Assessment of applicants

Imagine that your colleague had to go to surgery and would be unable to work for a few weeks. Your task is to complete two of his unfinished tasks. The first task is to hire regional manager for the winery with nationwide coverage. Your colleague evaluated all CVs and made brief notes about all applicants. Now, you should choose the best applicant. We will show you 3 CVs, which your colleague has shortlisted. You have to evaluate each applicant with a few questions and in the end you will choose the one that you think is the most suitable.

<p><u>Ing. Anna Šmitalová / Ing. Ján Horváth *</u> Date of birth: 17.9.1984 Place of residence: Nitra Email: anna.smitalova@gmail.com / jan.horvath@gmail.com * Phone number: 0909/234 910</p>
<u>Education</u>	<ul style="list-style-type: none">• 2008, University of Economics in Bratislava: Marketing management
<u>Working experiences</u>	<ul style="list-style-type: none">• 11 years in domain• 2016 – 2020 sales manager, a company with 250 employees• 2009 – 2015 Head of Marketing, a company with 50 employees
<u>Courses and workshops</u>	<ul style="list-style-type: none">• Risk Management Workshop• Team building and motivation
<u>Skills</u>	<ul style="list-style-type: none">• software (accounting, project management software, MS Office),• communication skills• critical thinking• driving licence
<u>Language skills</u>	<ul style="list-style-type: none">• English, B2• German, A2
<u>Interests</u>	<ul style="list-style-type: none">• Music, detective novels, traveling
<u>Cover letter</u>	yes
<u>References</u>	yes

Figure 1 The CV of top applicant

* name and email were in compliance with experimental condition

<u>Ing. Zuzana Kováčová / Ing. Martin Nagy *</u> Date of birth: 23.4.1983 Place of residence: Nové Zámky Email: zuzana.kovacova@gmail.com / martin.nagy@gmail.com * Phone number: 0909/123 456	
	<u>Education</u>	<ul style="list-style-type: none"> 2007, Slovak University of Agriculture in Nitra: Management
	<u>Working experiences</u>	<ul style="list-style-type: none"> 10 years in domain 2016 – 2020 team manager, a team with 8 employees 2009 – 2013 store manager, branch with 10 employees
	<u>Courses and workshops</u>	<ul style="list-style-type: none"> Project Management Workshop
	<u>Skills</u>	<ul style="list-style-type: none"> software (MS Office), communication skills driving licence
<u>Language skills</u>	<ul style="list-style-type: none"> English, B2 	
<u>Interests</u>	<ul style="list-style-type: none"> Music, movies, dance 	
<u>Cover letter</u>	yes	
<u>References</u>	no	

Figure 2 The CV of medium applicant

* name and email were in compliance with experimental condition

<u>Bc. Monika Vargová / Bc. Andrej Mlynár *</u> Date of birth: 30.7.1985 Place of residence: Stupava Email: monika.vargova@gmail.com / andrej.mlynar@gmail.com * Phone number: 0909/876 543	
	<u>Education</u>	<ul style="list-style-type: none"> 2009, Pan-European University in Bratislava: Economics and business management
	<u>Working experiences</u>	<ul style="list-style-type: none"> 8 years in domain 2017 – 2019 store manager, a team with 5 employees 2010 – 2014 office worker, advertising agency with 20 employees
	<u>Courses and workshops</u>	--
	<u>Skills</u>	<ul style="list-style-type: none"> software (MS Office), driving licence
<u>Language skills</u>	<ul style="list-style-type: none"> English, A1 	
<u>Interests</u>	<ul style="list-style-type: none"> traveling 	
<u>Cover letter</u>	no	
<u>References</u>	no	

Figure 3 The CV of worse applicant

* name and email were in compliance with experimental condition

Task 2: Choice of employee to be fired

Your second task is to choose one of the following employees to be dismissed. The reasons for the reduction are economic: due to the crisis and limited production, the company needs to dismiss one of its employees. In this case, your colleague preselected six applicants. Your task now is to recommend the one the company should dismiss.

Table A1 The list of employees' descriptions in Task 2 (Choice of employee to be fired)

description of employees

female*, 37 years old, 7 years in the company, often sick leaves, family member care and absences

male, 36 years old, 6 years in the company, sometimes has taken sick leaves, family member care and absences

male, 38 years old, 5 years in the company, often sick leaves, family member care and absences

female, 35 years old, 5 years in the company, sometimes has taken sick leaves, family member care and absences

female, 36 years old, 6 years in the company, virtually no sick leaves, family member care and absences

male, 37 years old, 7 years in the company, virtually no sick leaves, family member care and absences

* The other half of the sample received the same list but with the genders of employees switched, all other characteristics constant. The order of employees was randomized.

Please indicate why you selected the employee (an open question).

Appendix B (results)

Results for all applicants

First, we found out that there were no significant differences in assessment of competence, likeability or hire-ability between identical top man and woman applicants, but there were significant differences in wage offers (Table B1). Results were similar for starting salary for medium ($t = 2.294$; $p = .023$; $d = .370$) and worse applicants ($t = 2.093$; $p = .038$; $d = .337$): HR professionals offered a man higher wage than a woman (Graph B1). We also found that medium and worse women applicants were assessed as more likeable than men applicants (Table B1).

Table B1 Descriptive statistics of measured variables and differences between assessment of men and women applicants

CV		men applicants				women applicants				t	df	p	d
		N	ω	M	SD	N	ω	M	SD				
<i>best</i>	competence	77	.910	5.74	0.93	78	.992	5.73	1.08	0.059	153	.953	
	hire-ability	77	.893	5.51	1.08	78	.987	5.67	1.02	-0.949	153	.344	
	likeability	77	.879	5.41	0.88	78	.990	5.61	0.94	-1.403	153	.163	
	starting wage	77	-	1230.39	451.86	78	-	1055.77	295.64	2.845	152	.005	.459
	average wage	77	-	1498.55	531.91	78	-	1314.03	361.49	2.513	151	.013	.406
<i>medium</i>	competence	77	.931	5.37	0.91	78	.991	5.34	1.12	0.158	153	.875	
	hire-ability	77	.916	5.32	1.03	78	.981	5.41	1.03	-0.546	153	.586	
	likeability	77	.898	5.16	0.95	78	.986	5.47	0.85	-2.073	153	.040	.333
	starting wage	77	-	1128.55	335.66	78	-	1014.74	278.11	2.294	152	.023	.370
	average wage	77	-	1368.95	408.98	78	-	1255.45	343.92	1.859	151	.065	
<i>worse</i>	competence	77	.918	3.95	1.29	78	.984	4.11	1.24	-0.777	153	.438	
	hire-ability	77	.939	3.80	1.40	78	.974	4.12	1.39	-1.437	153	.153	
	likeability	77	.929	4.06	1.20	78	.984	4.50	1.17	-2.277	153	.024	.366
	starting wage	77	-	1012.24	291.67	78	-	920.26	252.79	2.093	152	.038	.337
	average wage	77	-	1225.79	367.40	78	-	1151.30	316.12	1.345	151	.181	

Note: N – number, ω – reliability (omega), M – mean, SD – standard deviation, t – t-test value, df – degree of freedom, p – significance, d – Cohen's d

Graph B1 Differences in wage offers to man and woman (* $p < .050$; ** $p < .010$)

For medium applicants, again HR men professionals did not assess top man and woman applicants differently but HR women professionals offered a man applicant significantly higher starting wage than an identical woman (1,126.35€ versus 995.45€; $t = 2.017$; $p = .047$; $d = .413$) and assessed woman as more likeable than man ($t = 2.483$; $p = .015$; $d = .506$). Moreover, femininity of HR men professionals correlated to higher assessment of man applicant as likeable ($r = .474$; $p = .019$) as well as higher assessment of woman applicant as competent ($r = .373$; $p = .030$), hireable ($r = .411$; $p = .016$), and likeable ($r = .471$; $p = .005$). There were no correlations of entity theory of gender roles and masculinity/femininity to the discrimination of woman applicant (nor to the favour of top man applicant) in the group of HR women professionals.

Even in the case of worse applicants, HR men professionals did not assess man and woman applicants differently. HR women professionals, on the other hand, assessed woman as more hireable ($t = 2.190$; $p = .031$; $d = .447$) and likeable ($t = 2.555$; $p = .012$; $d = .521$) than man. Moreover, masculinity of HR men professionals correlated to lower assessment of worse man applicant as competent ($r = -.454$; $p = .026$) and femininity related to higher assessment of woman applicant as hireable ($r = .359$; $p = .037$), and likeable ($r = .405$; $p = .018$). Similarly, in the group of HR women professionals, femininity related to higher assessment of man applicant as hireable ($r = .271$; $p = .050$), and likeable ($r = .313$; $p = .022$), but there were no correlations of entity theory of gender roles and masculinity to the discrimination of woman applicant.

Because of differences between man and woman applicants and different results in the group of men and women HR professionals, a two-way ANOVA was conducted on the influence of HR professionals' sex (men versus women) and applicants' sex (men versus women) on the assessment of applicants (competence, hire-ability, likeability, and starting and average wage offers). For the medium applicant, the HR professionals' sex affected the assessment of competence ($F(1,151) = 4.773$; $p = .030$): woman HR professionals ($M = 5.50$; $SD = 0.94$) assessed applicant as more competent than man HR professionals ($M = 5.12$; $SD = 1.12$). Next, applicants' sex affected offered starting wage ($F(1,150) = 4.656$; $p = .033$): woman was offered lower starting wage ($M = 1014.74$; $SD = 278.11$) than man ($M = 1128.55$; $SD = 335.66$). Moreover, there was significant effect of interaction between the effects of HR professionals' and applicants' sex on hire-ability of applicant ($F(1, 151) = 4.219$, $p = .042$): men assessed as more hire-able man, and women assessed as more hire-able woman.

For the worse applicant, the applicants' sex affected offered starting wage ($F(1,150) = 4.344$; $p = .039$): woman was offered lower starting wage ($M = 920.26$; $SD = 252.79$) than man ($M = 1012.24$; $SD = 291.67$).

Appendix C (additional survey)

We conducted an additional survey within a couple of days after the present study. The aim of the study was to explore whether the lower offered wage to women may be related to lower wage expectations of women in the relevant group of the Slovak population.

Methods

Participants and design

A total of 387 adult Slovaks participated in the study; seven of them were excluded from the analysis because their answers were outliers. Final sample consisted of 380 participants (200 women) in age 18 – 74 participated in the study ($M_{age} = 44.35$, $SD_{age} = 15.99$). Participation was voluntary and anonymous. Data collection was through an online survey hosted on Qualtrics and data were collected by an external agency (chosen in a tender and compliant with the international ESOMAR code), and was a part of another study unrelated to present study.

Measurement and procedure

After reading and signing the informed consent form, the participants completed several questionnaires and tasks not related to present study. Finally, we asked them what their monthly income is and wages they would be willing to accept for the vacancy we had investigated in the main study.

Results

In our sample, the income of women was significantly lower ($t = 2.326$; $p = .021$) than the income of men. On the other hand, women would be willing to accept about the same wage as men – there were no significant differences in reservation wage of men and women.

Table C1 Descriptive statistics of additional survey

		N	M	SD	Minimum	Maximum
age ^{ns}	men	180	45.50	16.19	18	81
	women	200	43.31	15.78	18	74
monthly income*	men	180	734.56	459.41	0	3500
	women	200	628.83	426.64	0	3000
starting wage ^{ns}	men	180	1400.41	719.84	0	3800
	women	200	1270.93	698.26	1.5	4000
average wage ^{ns}	men	180	1638.63	845.07	0	4500
	women	200	1521.89	853.78	2	5500

*($t = 2.326$; $p = .021$); ^{ns} non-significant