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Disability Disqualifies: A Vignette Experiment on Danish Employers' Intentions to Hire Applicants with Physical Disabilities

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The disability and employment literature identifies different factors thought to have an impact on hiring decisions. These factors are identified by surveying employers but have never been tested. Based on a vignette experiment with Danish employers using five different descriptions of a fictitious job applicant, this study examines the intentions of employers to hire a physically disabled applicant and whether financial compensation, public employment service recommendations, and the prospect of increased workload, influence such intentions. Results show that employers' intentions regarding hiring drop significantly when they receive a description of an applicant who uses a wheelchair. Adding information regarding the opportunity to apply for financial compensation to the description increases such intentions slightly. This implies that disability in and of itself is a disqualifying factor and that the intended recruitment practise is discriminatory.

Keywords: disability; discrimination; employment; employers; vignette experiment

1. Introduction

Most modern societies face the important task of improving the labour market situation for persons with disabilities. This complies both with policy ambitions to promote equal employment opportunities and with growing demands for labour (European Commission 2018). Despite decades of various strategies and policies, however, individuals with disabilities remain substantially underemployed compared to non-disabled persons (OECD 2010; WHO 2011; European Commission 2017). Denmark is no different. For decades, the employment gap between those with and without disabilities has been around 30 percentage points (Larsen & Høgelund 2015).

Employers play a crucial role as gatekeepers to the labour market. Sound knowledge of their attitudes and hiring behaviour towards persons with disabilities is therefore of great importance. Several survey-based studies have investigated employer attitudes and attempted to detect which factors encourage or discourage their motivation to hire those with disabilities (Bredgaard & Shamshiri-Petersen 2018). The underlying assumption in most attitudinal surveys is that attitudes are, at least to some degree, a predictor of behaviour. Even though attitudes and behaviour are closely connected (cf. Fishbein & Ajzen 1975), this is not always the case. Studies have pointed out how hiring practices do not necessarily reflect how employers tend to report relatively positive attitudes (Unger 2002; Burke et al. 2013; Andersson et al. 2015; Bruyère 2016; Bredgaard & Salado-Rasmussen 2020). Thus, to ascertain employers' actual behaviour towards disabled applicants, field experiments based on fictitious job applications were conducted (Ravaud, Madiot & Ville 1992; Baert 2016; Hipes et al. 2016; Ameri et al. 2018; Bellemare et al. 2018; Baert 2017). While field experiments can demonstrate the magnitude of discriminatory practices against disabled applicants, they struggle to provide information on the factors that might promote or mitigate such practices among employers. Numerous survey studies have pointed to factors such as financial incentives, positive attitudes resulting from prior experience, and prejudice regarding the adaptability of persons with disabilities to the workplace (for an overview, see Bredgaard & Shamshiri-Petersen 2018); nevertheless, an experimental design is required to establish whether they are in fact significant.

Introducing a survey-based vignette experiment in which different groups of employers are provided with different descriptions (vignettes) of fictitious job applicants, this study delves further into the intentions of employers towards hiring persons with disabilities. Like other survey studies, the present study does not record actual behaviour among employers. Nonetheless, the experimental design allows for the comparison of hiring intentions among employers

receiving a description of an implicitly non-disabled applicant with hiring intentions among those receiving a description of a disabled applicant. A study by Andersson et al. (2015) is one of the few to conduct a similar vignette experiment. Like most experimental studies, Andersson et al. examined employers' intended behaviour towards different types of disabilities (cf. Baert 2016). The present study includes only physical disability in the experiment. By including different information in the descriptions, however, the experimental vignette also allows for the testing of whether different factors influence employer intentions regarding the hiring of applicants with a disability.

This study therefore provides new knowledge of employer intentions with respect to hiring persons with disabilities. It also determines the extent to which employers are more negative towards disabled than non-disabled applicants and whether there are factors promoting or mitigating employers' hiring intentions.

1.1. Previous studies of employer attitudes and behaviour towards disabled employees

Previous studies of employer attitudes suggest that they tend to express relatively open-minded attitudes towards recruiting persons with disabilities and tend to acknowledge their social responsibility regarding social inclusion (cf. Bredgaard 2004, 2014; Jakobsen et al. 2015). When questions become specific or address employers' behaviour, however, they tend to display greater reluctance (for literature reviews, see Hernandez et al. 2000; Burke et al. 2013; Ju et al. 2013). Studies on actual behaviour disclose an even stronger reluctance. Field experiments have demonstrated extensive discriminatory behaviour against applicants with disabilities. Fictitious job applications from disabled and implicitly non-disabled applicants show significantly lower call-back rates for job interviews among those with a disability (Ravaud et al. 1992; Baert 2016; Hipes et al. 2016; Ameri et al. 2018; Bellemare et al. 2018; Baert 2017).

The published literature points to several factors influencing employer attitudes and hiring behaviour towards persons with disabilities. One factor is practical obstacles: If the workplace is inaccessible to a wheelchair user, for example, the employer might not want to employ a disabled applicant; similarly, persons with disabilities are simply unable to perform some tasks or jobs (Michailakis 2000). Another factor is costs. According to numerous studies, employers anticipate costs such as workplace accommodations, the need for supervision, or lost productivity due to absenteeism or lower work performance, capabilities, or qualifications (Hernandez et al. 2000; Peck & Kirkbride 2001; Unger 2002; Hornberger & Milley 2005; Morgan & Alexander 2005; Hernandez & MacDonald 2010; Kaye et al. 2011; Burke et al. 2013; Jasper & Waldhart 2013; Saleh & Bruyère 2018). Studies have also shown that employers tend to perceive disabled persons as less qualified, productive, and stable (Bricout & Bentley 2000; Wilton & Schuer 2006; Kaye et al. 2011; Jasper & Waldhart 2013; Ju et al. 2013; Gustafsson et al. 2014) and are concerned about their ability to adapt socially to the workplace (Clausen et al. 2004; Jakobsen et al. 2015). From the employer perspective, employing persons with disabilities is resource-demanding due to, for example, the reorganisation of work, extra work assignments, supervision, and support. Studies on workload and discrimination based on race or ethnicity have demonstrated that expected increased workload further encourages discriminatory behaviour against minority groups (for an overview, see Andersen & Gull 2019). Thus, a third factor is the prospect of extra work (Clausen et al. 2004; Thomsen et al. 2011; Gustafsson et al. 2014; DHF 2016, 2018). A fourth factor is experience with disabled employees. Studies point to prior employer experience as one of the most significant determinants of a willingness to hire a disabled person (Hernandez et al. 2000; Unger 2002; Morgan & Alexander 2005; Copeland et al. 2010; Ju et al. 2013; Andersson et al. 2015). Employers with experience with employees with disabilities tend to have more positive attitudes and knowledge of the available subsidies, compensation schemes, and workplace alternations, which in other cases constitute an obstacle (Hernandez et al. 2000; Morgan & Alexander 2005). A final factor is the relation between employers and the public employment service (PES). While people with disabilities are more reliant on the PES (Bredgaard & Shamshiri-Petersen 2018), studies have suggested that employers find collaboration somewhat burdensome (DHF 2018) and tend to be sceptical about jobseekers sent by the PES (Larsen & Vesan 2012; Bonoli & Hinrichs 2012). Conversely, other studies have found that PES recommendations have a positive influence on how employers rate candidates (Liechti 2019).

1.2. Aim of the study

A vignette experiment using a fictitious job applicant investigates the intentions of employers to employ a physically disabled applicant compared to an implicitly non-disabled applicant. By introducing different vignettes, including information on 1) financial compensation, 2) the requirement for the reorganisation of work, and 3) PES recommendations, three factors thought to affect employers' intentions are examined. Factors that affect employers differently, such as prior attitudes, knowledge, or experience with employees with disabilities, are also examined. This allows for the testing of the effect of different interactions between the three factors and different employer characteristics, which produces new knowledge not only about the effects of different factors but also how different employer types are affected by the factors.

Based on the aim of this study and the existing literature presented above, three research questions and the related expectations have been derived.

1. *To what extent do employer intentions to hire an applicant with and without a physical disability differ?*

Employers are expected to have stronger intentions to hire an implicitly non-disabled applicant compared to an applicant with a physical disability.

2. *How do factors such as financial compensation, workload, and PES recommendation affect the intention of an employer to hire?*

Informed about the opportunity to apply for financial compensation, employers are expected to have stronger intentions to hire an applicant with a disability than those who do not receive such information. Second, employers receiving information about the prospect of extra workload are expected to be less interested in hiring an applicant with a disability than other employers. Finally, a PES recommendation may result in both positive and negative intentions to hire an applicant with a disability.

3. *Do employers' prior attitudes, knowledge, or experience with disabled employees cause them to be affected differently by the factors?*

Employers who consider employees with disabilities a financial liability to the workplace or who are unaware of the financial compensation schemes are expected to be positively affected by information regarding the opportunity to receive compensation. Employers who think that employees with disabilities are difficult to reassign to new tasks are expected to be affected negatively by the information regarding workload. Furthermore, employers who believe they have a social responsibility to facilitate the entry of persons with disabilities into the labour market are expected to be positively affected by a PES recommendation.

Finally, employers who have experience with disabled employees are expected to have more positive intentions towards hiring than inexperienced employers, although as employers without knowledge of compensation schemes, inexperienced employers are expected to be positively affected by the reminder of financial compensation.

2. Methods and Data

The study comprises a survey experiment and therefore combines experimental design and a survey methodology (Auspurg and Hinz 2015). The survey was sent to a representative sample of Danish workplaces with three or more employees from both the public and private sectors from November to December 2018 as a web-based survey with follow-up telephone interviews. The sample included 5000 workplaces selected from the Danish company register, in which all Danish companies are required to be registered, and the response rate was 41% ($n = 1901$). A manager responsible for making staff decisions (e.g. directors or personnel managers) was requested as the respondent for each company. The respondents therefore consist of 1901 managers, all from different companies. The sample was stratified by company size, measured by the number of employees.¹

In addition to the vignette experiment, the survey addressed questions about employer attitudes, knowledge, and experience regarding disabled employees. The survey also includes background information about company size, sector, industry, and geography.

Studies of this subject are sparse in Denmark, and, since the Danish labour market is 'softly regulated' and characterised by relatively autonomous Danish employers (Bredgaard 2014), it constitutes a relevant case for studying employers' intentions towards hiring and how they are affected.

In the vignette experiment respondents were randomly allocated to one of five groups in the vignette experiment (between-group design, cf. Atzmüller and Steiner 2010), each group receiving different descriptions (vignettes) of a fictitious job applicant, and the respondents were asked to express how likely they would be to hire the applicant. This is illustrated in **Table 1**. By randomly assigning respondents to each group, the groups are considered identical. Any differences between groups, except for the experimental condition, are therefore expected to be random rather than systematic (de Vaus 2001: 45).

The baseline vignette describes an implicitly non-disabled job applicant possessing the required formal education and personal skills. Having some years of experience indicates that the applicant is neither newly qualified nor senior, which aims to eliminate any discrimination due to age. The control group consists only of the baseline vignette.

In all four experimental groups, the wheelchair is used to indicate physical disability. Obviously, a wide range of different types of physical disabilities exist, but since most people have some notion of the implication of using a wheelchair, it is found to be the most apt indicator (Bellemare et al. 2018). Mention is also made of how the disability would require some adjustments, as this would be the case in many workplaces. For workplaces that are already disability-friendly, this should make no difference.

¹ Data is not completely representative for Danish companies regarding sector and size. Even though the experimental design makes the vignettes comparable, all of the analyses have nonetheless been run both with and without weighting. Results do not differ, and the following is thus based on unweighted data.

Table 1: Vignette groups.

Baseline vignette					
<i>Imagine a situation in which you are going to hire a new employee. A person applies for the job and states that they have a few years of experience in the industry and have the educational background you require. The applicant is positive, energetic, and a hard worker.</i>					
Vignette-group	Control group	Experimental group 1	Experimental group 2	Experimental group 3	Experimental group 4
	Baseline vignette	Baseline vignette	Baseline vignette	Baseline vignette	Baseline vignette
		+	+	+	+
Information about disability		<i>Furthermore, the applicant tells you that they are a wheelchair user,</i>	<i>Furthermore, the applicant tells you that they are a wheelchair user,</i>	<i>Furthermore, the applicant tells you that they are a wheelchair user,</i>	<i>Furthermore, the applicant tells you that they are a wheelchair user,</i>
		+	+	+	+
Additional information		<i>which requires some adjustments in the workplace.</i>	<i>which requires some adjustments in the workplace, but it is possible to apply for financial compensation.</i>	<i>which requires a minor reorganisation of work.</i>	<i>which requires some adjustments in the workplace. The PES recommends hiring the applicant.</i>
Factor captured by the additional information		Disability	Financial compensation	Workload	PES recommendation

Each vignette was followed by the question ‘On a scale from 1–5, 1 being very likely and 5 very unlikely, how likely is it that you would hire the applicant?’. The means of the vignette groups are compared on the 5-point scale using ANOVA assuming $h_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$, i.e. no differences between the means of the five vignette groups (Agresti & Finley 2014). The control group starts as the intercept to which all four experimental groups are compared. Furthermore, all four experimental groups are compared pairwise. To examine the third research question, experimental group 1 becomes the intercept instead of the control group, still using ANOVA. The Šidák multiple comparison method is applied to all tests.

3. Results

This section presents the results and answers the three research questions from section 1.2. Each research question is examined separately in this section, whereas section 4 discusses the overall implications of the findings.

3.1. Employers’ intentions to hire applicants with and without a physical disability

The first research question in this study examines whether the intentions of employers to hire an applicant with and without a disability differ. According to Table 2, most of the employers in the control group, who were introduced to the vignette describing the impliedly non-disabled applicant, subsequently hold positive hiring intentions, 71.5% expressing that they are likely (1 or 2 on the 5-point scale) to hire the fictitious applicant. However, this percentage falls markedly when the vignette includes information that the applicant uses a wheelchair; only 22.3% of the employers in experimental group 1 are likely to hire such an applicant. The proportion with positive intentions towards hiring the applicant thus falls by almost 50 percentage points.

The negative effect of adding information about how the applicant uses a wheelchair occurs in all experimental groups. In none of the groups is the number of employers likely to hire surpass 31%. Hence, a test of mean differences demonstrates that all of the experimental groups differ significantly from the control group.

Circumstances in the workplace can either inhibit or encourage the hiring of a disabled applicant. As Table 3 shows, employers who report both having job functions suitable for persons with a disability and the workplace being accessible are more likely to hire the disabled applicant than employers overall. Among this group, between 52 and almost 60% across the four experimental groups state that they are likely to hire.

Nevertheless, even though the gaps between all four experimental groups and the control group are reduced markedly in Table 3 compared to Table 2, a significant difference remains. In other words, even among employers who state that there are job functions at their workplace that could be handled by a disabled person and that the workplace is accessible, the likelihood of hiring remains 20 percentage points lower when employers receive the information that the job applicant uses a wheelchair.

Table 2: Vignette groups and the likelihood of hiring the applicant. Percentages and means.

	1 – Very likely to hire the applicant	2	3	4	5 – Very unlikely to hire the applicant	Total	Mean	Mean difference (to control group)
Control group No disability	44.7	26.8	15.4	5.9	7.2	100%	2.04	0
Experimental group 1 Wheelchair user, requires some adjustments	10.2	12.1	16.8	14.0	48.9	100%	3.75	1.71***
Experimental group 2 Wheelchair user, requires some adjustments, opportunity for financial compensation	15.6	15.3	19.7	10.6	38.9	100%	3.42	1.38***
Experimental group 3 Wheelchair user, requires reorganisation of work	14.3	11.5	18.0	11.0	45.2	100%	3.61	1.57***
Experimental group 4 Wheelchair user, requires some adjustments, recommendation from PES	10.5	15.0	18.0	14.4	42.2	100%	3.63	1.59***

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Table 3: Vignette groups and the likelihood of hiring the applicant by job function and accessibility. Percentages and means.

	1 – Very likely to hire the applicant	2	3	4	5 – Very unlikely to hire the applicant	Total	Mean	Mean difference	
Both having job functions and being accessible (n = 583)	Control group	48.1	23.8	15.9	6.9	5.3	100%	1.97	0
	Experimental group 1	25.5	26.5	26.5	8.8	12.7	100%	2.57	0.60**
	Experimental group 2	29.9	29.9	20.5	6.0	13.7	100%	2.44	0.46*
	Experimental group 3	34.5	21.0	21.0	7.6	16.0	100%	2.50	0.52**
	Experimental group 4	25.0	28.0	29.0	7.0	11.0	100%	2.51	0.54**
Not having job functions or not accessible (n = 636)	Control group	39.5	28.2	16.9	6.7	8.7	100%	2.27	0
	Experimental group 1	1.8	4.5	6.3	11.7	75.7	100%	4.55	2.38***
	Experimental group 2	5.1	4.2	14.4	13.6	62.7	100%	4.25	2.08***
	Experimental group 3	2.7	2.5	7.3	10.9	76.4	100%	4.56	2.39***
	Experimental group 4	1.0	6.9	10.8	13.7	67.6	100%	4.40	2.23***

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

3.2. The effect of different information

The second research question calls for establishing whether different information in the description of the physically disabled applicant affects the employer intention to take on the person. For this reason, a pairwise comparison of the means of the 5-point scale for all four experimental groups was conducted.

The only significant result appears when comparing experimental groups 1 and 2. As shown in **Table 2**, 30.9% of employers who received the vignette including the prospect of financial compensation are likely to employ the fictitious applicant, compared to 22.3% in the group that only received information about the disability. This indicates the positive effect of financial incentives, which is confirmed by the pairwise comparison. Employers from experimental group 2 score, on average, 0.33 points better on the 5-point scale of the likelihood of employing the applicant than employers from experimental group 1.

In Denmark, employers are entitled to financial compensation for workplace adjustments, but few employers are aware of these schemes. A reminder regarding the opportunity to receive compensation appears to increase an employer's likelihood of hiring a person with a disability compared to the group that only received information about the disability.

Information about financial compensation does not significantly increase the likelihood of hiring when compared to employers having received information about the PES recommendation or increased workload. Furthermore, neither a recommendation from the PES nor the prospect of the requirement for reorganising work significantly affects employers' intentions to employ the disabled applicant, compared to only receiving information about the disability.

3.3. Are employers affected differently by the information?

The third research question in this study is to establish whether employers' prior attitudes, experience, or knowledge regarding physically disabled employees cause them to be affected differently by the factors.

Regarding the vignette on financial compensation, employers who think of disabled employees as a financial liability or who have no knowledge of compensation schemes would be expected to have stronger hiring intentions when receiving this vignette than corresponding employers only receiving information on the applicant being disabled (experimental group 1). But the results are quite mixed. As demonstrated in **Table 4**, employers who think that disabled employees are less productive are no more positive towards hiring when informed about financial compensation. Among the employers who believe that disabled employees involve additional costs and who believe in financial incentives to promote employment among persons with disabilities, the results do actually point to an increase in the number of employers who are likely to hire when reminded of the financial compensation (experimental group 2). Nonetheless, this is not statistically significant.

Employers who lack knowledge regarding the financial compensation schemes are significantly affected by the financial factor. If employers are not familiar with these schemes, they score on average 0.46 points less on the 5-point scale when receiving information about financial compensation than employers from experimental group 1 with the same lack of knowledge. **Table 4** also shows that employers who hold negative beliefs about disabled employees regarding costs are less likely to hire, compared to the data in **Table 2**, which includes all employers. For instance, 11.5–19.2% of the employers in **Table 4** who thought employees with a disability are less productive were likely to hire the applicant, compared to the 22.3–30.9% range in **Table 2**.

Regarding the vignette on the reorganisation of work, employers' perceptions of the adaptability of disabled employees to do new work are included. Employers who believe that employees with a disability are difficult to reassign to new

Table 4: Experimental groups and the likelihood of hiring the applicant by financial attitude. Percentages and means.

		1	2	3	4	5	Total	Mean	Mean difference
Think disabled employees are less productive (n = 371)	Experimental group 1	6.2	7.2	14.4	10.3	61.9	100%	4.14	0
	Experimental group 2	9.0	5.0	10.0	13.0	63.0	100%	4.16	0.02
	Experimental group 3	6.3	5.2	10.4	10.4	67.7	100%	4.28	0.14
	Experimental group 4	3.8	15.4	10.3	9.0	61.5	100%	4.09	-0.06
Think disabled employees involve additional costs (n = 729)	Experimental group 1 (intercept)	7.0	11.8	16.0	14.4	50.8	100%	3.90	0
	Experimental group 2	13.3	14.9	16.4	10.3	45.1	100%	3.59	-0.31
	Experimental group 3	9.0	10.6	16.9	12.2	51.3	100%	3.86	-0.04
	Experimental group 4	8.9	12.0	18.4	14.6	46.2	100%	3.77	-0.13
Think financial schemes promote hiring applicants with disabilities (n = 308)	Experimental group 1 (intercept)	8.5	11.0	23.2	17.1	40.2	100%	3.70	0
	Experimental group 2	9.3	17.3	22.7	18.7	32.0	100%	3.47	-0.23
	Experimental group 3	21.2	15.8	15.8	15.8	31.6	100%	3.21	-0.49
	Experimental group 4	5.3	18.7	25.3	13.3	37.3	100%	3.59	-0.11
No knowledge about compensation schemes (n = 958)	Experimental group 1 (intercept)	6.7	10.0	18.0	14.2	51.0	100%	3.93	0
	Experimental group 2	14.1	14.5	20.6	11.8	38.9	100%	3.47	-0.46**
	Experimental group 3	13.1	10.8	16.3	12.4	47.4	100%	3.70	-0.23
	Experimental group 4	10.2	11.7	18.9	15.0	44.2	100%	3.71	-0.22

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Note: The number of respondents (n) does not include the control group.

tasks are expected to be less positive towards hiring the disabled applicant, and the question becomes whether they will be negatively affected when reminded of the need for reorganisation compared to employers who do not receive this information. The information regarding the reorganisation of work could confirm the employer's assumption that employees with disabilities are difficult to reassign to new tasks.

Table 5 shows that employers who do think that disabled employees are less able to adapt to new tasks are in fact slightly less likely to hire the disabled applicant compared to the data in **Table 2** for all employers. It also shows that there is no difference between experimental groups 1 and 3. Thus, if employers hold positive perceptions from the outset, they do not become less willing to hire when informed of the requirement for the reorganisation of work than the employers who only receive information about the disability. Moreover, they are neither significantly affected by the reminder of financial compensation nor the recommendation from the PES.

The PES recommendation may not affect all employers equally. Employers representing companies with a corporate social responsibility (CSR) strategy and those who believe that they have a social responsibility to hire disabled employees are expected to have more positive intentions towards hiring than those without a CSR strategy or social responsibility belief, although this intention is expected to increase when they receive a PES recommendation. As shown in **Table 6**, however, this is not shown to be correct.

The results do not support the assumption that employers who express positive social attitudes are more receptive to a recommendation from the PES – or any of the other information, for that matter. A CSR strategy does strengthen intentions towards hiring the disabled applicant compared to the overall results in **Table 2**, which seems plausible, since a strategy in itself indicates a company's goodwill. Further, employers' sense of social responsibility tends to increase intentions to hire. Since 69.5% of employers believe they have a social responsibility, there is no difference compared to the overall results (**Table 2**). Compared to the smaller group of employers who do not believe that they have a social responsibility, employers taking on the responsibility are more positive. Further analysis reveals that only 15.6% of employers not feeling a social responsibility have positive intentions towards hiring.

Finally, we examine how employers with and without prior experience with disabled employees are affected by the vignettes. The survey shows that only 27 % of the employers have experience with employees with a disability.

Table 5: Experimental groups and the likelihood of hiring the applicant by adaptability attitude. Percentages and means.

		1	2	3	4	5	Total	Mean	Mean difference
Do think employees with a disability are difficult to reassign to new tasks (n = 743)	Experimental group 1	8.2	9.9	13.7	14.8	53.3	100	3.95	0
	Experimental group 2	13.1	13.6	17.7	11.6	43.9	100	3.61	-0.36
	Experimental group 3	10.8	10.8	17.2	15.3	45.8	100	3.74	-0.20
	Experimental group 4	5.6	11.9	21.9	12.5	48.1	100	3.91	-0.09

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Note: The number of respondents (n) does not include the control group.

Table 6: Experimental groups and the likelihood of hiring the applicant by social responsibility attitudes. Percentages and means.

		1	2	3	4	5	Total	Mean	Mean difference
Have a CSR strategy (n = 265)	Experimental group 1	12.3	15.4	26.2	16.9	29.2	100%	3.35	0
	Experimental group 2	23.3	23.3	11.0	8.2	34.2	100%	3.07	-0.29
	Experimental group 3	23.8	12.7	20.6	12.7	30.2	100%	3.13	-0.23
	Experimental group 4	6.3	32.8	18.8	10.9	31.3	100%	3.28	0.07
Feel social responsibility to hire applicant with a disability (n = 949)	Experimental group 1	11.5	13.8	18.8	14.2	41.7	100%	3.61	0
	Experimental group 2	16.9	18.5	19.3	10.6	34.6	100%	3.28	-0.34
	Experimental group 3	17.9	13.0	17.6	12.2	39.3	100%	3.42	-0.19
	Experimental group 4	10.7	18.1	20.5	12.1	38.6	100%	3.50	-0.11

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Note: The number of respondents (n) does not include the control group.

Table 7: Vignette groups and the likelihood of hiring the applicant by prior experience. Percentages and means.

		1	2	3	4	5	Total	Mean	Mean difference
Have experience (n = 344)	Experimental group 1	14.6	19.5	18.3	13.4	34.1	100%	3.32	0
	Experimental group 2	20.0	15.8	26.3	8.4	29.5	100%	3.12	-0.21
	Experimental group 3	24.2	13.2	25.3	12.1	25.3	100%	3.01	-0.32
	Experimental group 4	15.8	26.3	17.1	9.2	31.6	100%	3.15	-0.19
Have no experience (n = 932)	Experimental group 1	9.1	7.7	15.0	15.0	53.2	100%	3.96	0
	Experimental group 2	13.9	14.7	16.7	10.8	43.8	100%	3.56	-0.40*
	Experimental group 3	11.2	9.2	14.9	11.2	53.4	100%	3.86	-0.09
	Experimental group 4	7.1	11.3	18.4	15.6	47.6	100%	3.85	-0.10

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Note: The number of respondents (n) does not include the control group.

As expected, **Table 7** demonstrates a clear difference between experienced and inexperienced employers in all four experimental groups, with experienced employers having substantially stronger intentions towards hiring the disabled applicant. Compared to the control group of all employers in **Table 2**, even among employers who have or have had a disabled employee, the preference gap between those who are likely or very likely to hire the fictitious applicant is around 30 percentage points in all of the experimental groups in favour of the implicitly non-disabled applicant. Further, inexperienced employers were expected to be positively affected by the opportunity for financial compensation. This was shown to be correct.

4. Discussion

The present study examined the intentions of Danish employers to hire persons with physical disabilities and how this intention is influenced by information regarding the opportunity for financial compensation, increased workload, and a recommendation from the PES. One of the strengths of the experimental vignette design is that it allows for the inclusion of factors and testing how they affect an employer's intention to hire. Previous literature points to several factors influencing the attitudes and behaviour of employers towards disabled persons. In most cases, knowledge of these factors is self-reported by employers, indicating what would make them more likely to hire a person with a disability (Bredgaard & Shamshiri-Petersen 2018). Although such knowledge is of great importance to be able to better understand the complexity of employers' attitudes and motivations, it does not necessarily offer insight into the factors influencing their behaviour. Despite only capturing the intended behaviour, the strength of the experimental vignette in large surveys is that it allows for the variation of several factors and the examination of their effects. Such an undertaking would be much too extensive to complete through field experiments, where employers receive fictitious applications would require great effort and extensive resources. In such a manner, the vignette experiment benefits from both the experimental design and the survey methodology.

4.1. Implications of the results

Similar to findings from experiments in other national settings with different labour market mechanisms (Andersson et al. 2015; Baert 2016; Ameri et al. 2018; Bellemare et al. 2018), the overall result is that intentions towards hiring decline substantially when the applicant is disabled. Hiring intentions are conditional on how employers perceive workplace accessibility and suitable job functions. However, even among employers who state that the workplace is accessible and that they have jobs suitable for a wheelchair user, significant differences between the control group and all four experiment groups remain. Employers from accessible workplaces with suitable job functions are more positive towards hiring than employers from non-accessible workplaces, but accessibility and suitable job functions are clearly not enough to set applicants with and without disabilities on equal footing. Thus, since the three factors included in the vignettes did not show any notable effects on employers' intentions, our findings suggest that physical disability is in and of itself a disqualifying factor for a job applicant and implies serious challenges to the integration of persons with a disability on the labour market.

As demonstrated, information on financial compensation did slightly increase the number of employers who intended to hire the disabled applicant. Considering the emphasis on the financial implications of hiring a disabled person among the employers themselves, greater impact was expected. One reason might be that Danish employers do not think that the current compensation schemes match the costs and in that sense do not present a proper incentive.

Even so, the significant result from financial compensation emphasises the importance of employer awareness. As evident from the results section, the intention to hire the disabled applicant increased significantly both among

employers unacquainted with compensation schemes and those inexperienced with disabled employees when exposed to the financial compensation vignette. Thus, informing employers otherwise unfamiliar with disabled employees about compensation opportunities does positively influence their intentional behaviour towards hiring. This clearly indicates that employer awareness of financial compensation schemes regarding people with disabilities is an underlying prerequisite for improving labour market inclusion. Nevertheless, although affecting intentions positively, information about financial compensation is far from closing the gap between non-disabled and disabled applicants. This is in line with a recent study of hiring behaviour that found that financial factors are not as significant as often stated in attitudinal surveys among employers (Baert 2016). As demonstrated, hiring intentions remain substantially different, indicating that research should not place too much trust in the explanatory power of financial incentives, turning instead to other factors to understand employer hiring intentions and behaviour.

4.2. Discriminatory hiring intentions

The unanswered question is how the gap in the intentions among employers to hire the disabled and non-disabled applicants is to be interpreted. Danish employers express rather positive attitudes towards persons with disabilities (Bredgaard & Salado-Rasmussen 2020). Yet even employers representing an accessible workplace with job functions suitable for a wheelchair user are evidently considerably more reluctant to hire the disabled applicant than the non-disabled. The same applies for employers experienced with disabled employees. A sizeable body of research points to implicit discrimination against minority groups based on unconscious and somewhat automatic psychological processes (Andersen and Guul 2019). For persons with disabilities, Deal (2007) conceptualises this as *aversive disablism*.

The results could therefore indicate discrimination due to unconscious reservations and highlight a complexity in employer attitudes and behaviour towards persons with disability. Employers hold ambivalent attitudes (cf. Zaller 1992), applauding the notion of supporting people with disabilities through employment, on the one hand, while holding various concerns and unarticulated reluctance on the other. Thus, a further research step is to formulate a firmer understanding of the ambivalent nature of employer attitudes towards disabled employees and the complex relationship between attitudes and behaviour in this regard.

4.3. Limitations

Two limitations of the present study must be addressed. The first concerns the reach of the results. The vignette experiment only included one type of physical disability. The results therefore do not necessarily apply to other types of physical disabilities or mental disabilities. Studies have reported that wheelchair users face the fewest hurdles in the labour market (Bellemare et al. 2018: 18) and that persons with physical disabilities do better in the labour market and are less discriminated against than those with mental disabilities (Ameri et al. 2018; Larsen & Larsen 2017; Andersson et al. 2015). The present study thus constitutes a critical case (cf. Flyvbjerg 2006): If intentions towards hiring declines for this group of disabled persons, then it must decline by at least the same degree for other disability groups.

The second limitation concerns the experimental methodology used in the study. Criticism has often been levelled against the external validity of survey experiments, questioning the applicability of the experimental setting to the real world. Attitudes and behaviour derived from experiments may not be an accurate reflection of employer attitudes and behaviour in 'real life' settings or towards 'real life' people (Duckett 2000). Moreover, experiments do not take contextual conditions into account (Davidson 2011). Although acknowledging the limitations of the present study, the conclusions remain tenable: the number of employers with positive intentions towards hiring are most likely overestimated – not underestimated (Wulff & Villadsen 2019). After all, hypothetical choices carry no real consequences, which increases the inclination of an employer to give what is thought to be the most socially acceptable response. If so, this points to discrimination being even greater in real hiring practices.

5. Conclusion

Based on a vignette experiment with fictitious job applicants, the present study has examined the intentions of Danish employers to hire persons with physical disabilities and how this intention is affected by three different factors: financial compensation, workload, and PES recommendation. The overall result is that if an applicant reports using a wheelchair, the intention of the employer to hire declines substantially. None of the factors thought to affect employers' intentions either positively or negatively resulted in any notable changes. Information on financial compensation increased the number of employers who intended to employ the disabled applicant slightly, but neither information on workload nor a PES recommendation had any effect. Significant support for factors influencing different groups of employers differently was only found among employers lacking knowledge regarding compensation schemes or prior experience with disabled employees. Among these employers, intentions towards hiring the disabled applicant increased when receiving the information regarding financial compensation. Overall, the findings suggest that, in and of itself, physical disability is a disqualifying factor for a job applicant.

Competing Interests

The authors have no competing interests to declare.

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