# A Comparison of East and West on the effect of Age Discrimination on the Hiring Process.

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#### Abstract

Age discrimination for younger workers in the hiring process is left unexplored by academic research. To contribute to resolving the issues that prevent young workers from being hired by companies, we set up an experiment: participants (N=131) were asked to rate their willingness to hire two hypothetical candidates. We employed a mixed design with culture (west vs. east) and age attitudes as between-subject moderators, and age of the applicant (young vs. adult) as within-subject variable. The dependent variable was the willingness to hire the hypothetical applicants. Unexpectedly, the effect of applicant age on willingness to hire was not significant: participants were equally willing to hire both candidates. This effect was independent of culture or age attitudes. Our results suggest young age itself may not be an underlying factor for discrimination. Education levels and expected company cost should be further explored in a choice setting closer to the hiring process.

*Keywords*: hiring process, age attitudes, cultural difference, young workers

Since the beginning of the millennium, the institutions of the European Union have increased their efforts to combat youth unemployment, which after the 2008 financial and economic crisis were ever increasing (Lahusen, Schulz & Graziano, 2013). Their efforts were rewarded with a slow decrease in youth unemployment from 2013 to 2019 (Statline, 2020). However, with the COVID-19 crisis turning into a global pandemic in 2020, this will revert unemployment to an increasing problem again. According to CBS the youth workers of age 15-25 have been hit the hardest. In 2020 youth unemployment was projected to increase by 7.4%, rising much faster than the 2008 economic and financial crisis, causing youth unemployment to increase by 4.3% (Eurostat, 2020). The International Labour Organization reported this was an underestimation: youth employment fell by 8.7% globally, compared to 3.7% for adults (ILO, 2021). The ILO calls for broader monitoring of labour market outcomes for youth, they claim action is needed to prevent short-term exit from turning into long-term exclusion for a generation of young people. In addition to disproportionately higher unemployment rates, the young workers that are employed, more often occupy precarious jobs than adults do, and the growth in unpaid internships affects younger workers more than other age groups (Blackham, 2019). Similarly, Duncan & Loretto (2004) have already demonstrated young workers experience more discrimination in the workplace compared with the 25-34 and 35-44 age groups. Snape and Redman's study (2003) asked people of all age groups, if they had experienced age discrimination in general and followed up these questions with specific domains where this age discrimination took place. Young workers under 30 years old felt they had experienced higher levels of discrimination because of their age than any other age group. From their answers to the follow up questions, young workers mostly suffered discrimination in terms of promotions and job applications. The latter being vital in reducing youth unemployment. Legally, these young workers are left unprotected from discrimination in the hiring process. For instance, the USA's age discrimination laws only apply to individuals over the age of 40. Therefore, more research on the subject in order to understand and possibly counter age discrimination for young workers is necessary. Furthermore, if we examine how age affects the hiring process, we cannot exclude the human side of the decision on whom to hire. This study seeks to examine age discrimination in the hiring process for young workers by exploring recruiters' willingness to hire different aged applicants.

Young unemployed workers will inevitably have to find a job to become financially independent. In addition to financial benefits, obtaining a job can prevent the detrimental effects of unemployment on their mental health (Thern et al., 2017). Young workers are often

less costly when it comes to salary and can thus generate more net profits for a company. Despite this, during the hiring process, they will be less likely to be hired than their middle aged counterpart (Snape & Redman, 2003). An effect that reverses once the worker reaches older age and is less likely to be hired than their middle aged counterparts (Büsch & Königstein, 2020; Büsch, Dahl & Dittrich, 2009). Even though both younger and older employees are equally likely to become victims of age discrimination (Snape & Redman, 2003), most research has focused on discrimination against older employees (Zacher & Steinvik, 2015). All the more reason for this study to give this issue the attention it requires and further investigate the hiring process for young workers. Thus, we will look into the willingness to hire young versus adult workers.

## **Age Attitudes**

The factual age may affect that decision, but the attitudes of the hiring person towards young age may contribute to possible discrimination towards this age group. Therefore, we will explore the age attitudes of the recruiters and how those could affect their willingness to hire a candidate. While a plethora of research on age attitudes toward *older* workers exists, only few studies show their direct link to affecting the discrimination of older workers based on their age in the hiring process. If a manager has more positive attitudes toward older workers, they are more likely to intend to hire older people (Lu, Kao & Hsieh, 2011) and more likely to suggest an older applicant for a job interview (Krings, Sczesny & Kluge, 2011). Likewise, negative attitudes towards older workers were positively related to avoidance of hiring older workers, which in turn was negatively related to the likelihood to select an old candidate in the hiring process (Fasbender and Wang, 2017). However, a recruiter's age attitudes affecting young workers in the hiring process specifically, is mostly left unexplored. Young workers are associated with certain stereotypes; positive ones in being more adaptable and better with technology; and negative ones, for instance a lack of capabilities or inexperience. Duncan & Loretto (2004) asked their participants, workers of all ages, about their negative experiences based on age. The young workers reported they were perceived as less intelligent/capable in terms of challenging work, would be overlooked for promotions based on their age or youthful appearance, and suffered from unfavorable comparisons with older colleagues, who were thought of as more reliable and responsible.

## Culture

The effect of age on the hiring process does not appear to be universal. Büsch, Dahl & Dittrich (2009) conducted a study comparing discrimination for *older* age workers in Germany and Norway. In their study, participants, made up of students and human resource

managers, received a description of an age-neutral type job and several hypothetical adult or older aged applicants. Subsequently, they were asked to decide on whom of the applicants they would hire. They found older applicants have a lower probability of being hired, suggesting actual age discrimination. Additionally, Norwegian participants showed significantly less discriminatory behavior on average. There was no significant difference between students and managers and no dependence based on the respondent's own age. Norway has less unemployment and a higher participation rate of older workers. Therefore, the results of Büsch, Dahl & Dittrich's study may be influenced by the norms caused by the different working situation in the two countries for older workers. The reason for higher discrimination of older workers in Germany might be that, unlike Norway, the age of an employee in Germany seems to be closely related with hierarchical principles. In that case an employer in Germany may try to avoid hiring an older applicant for a low status or entry level position to avoid conflicting with these principles.

Furthermore, on a more global perspective, Chiu, Chan, Snape and Redman (2001) collected data from participants consisting of mostly managers in the UK and Hong Kong representing western and eastern societies respectively. They measured age stereotypes and discriminatory attitudes on employment practices through a questionnaire. Differences in attitudes toward older workers were found between the countries. In Hong Kong older workers were rated more positively than in the UK despite the theorized larger educational gap between generations. Additionally, Lu, Kao & Hsieh (2011) found among Taiwanese participants that traditional Chinese cultural values were related to stronger intentions to hire older workers. Older workers being more positively rated is in accordance with Bond & Hwang's (1986) research which suggested there is a higher degree of deference towards age in eastern cultures. Possibly explained by cultural dimensions of Power Distance and Individualism (Hofstede, Hofstede & Minkov, 2010). The UK is considered an individualistic society with a relatively low tolerance for inequality of power and income, while Hong Kong society can be seen as having a high degree of collectivism and a strong respect for age hierarchy, characteristically found in most eastern societies. In our study, we compared the cultural difference in age discrimination between East and West, but shifted our focus to young workers. The higher deference towards age in eastern cultures could result in less positive attitudes towards young age in comparison, which in turn could be detrimental for younger workers during the hiring process. Therefore, our expectation is that young workers will be more discriminated against in Eastern societies during the hiring process. South Korea and the Netherlands were used as representatives for East and West respectively.

Consequently, the willingness to hire young workers should be lower in South Korea than in the Netherlands. Of course, South Korea was influenced by the United States after their involvement in the Korean war. This is likely to have left its mark on Korean society. Thus, our comparison of the Netherlands and South Korea may understate the differences between east and west that could potentially be found by observing other eastern countries.

As mentioned before, there is a lack of research done on the age discrimination in young workers. Chiu, Chan, Snape and Redman (2001) found that a cultural difference in age discrimination for older workers exists. Consequently, we want to examine if there is a similar cultural difference between the East and the West in age discrimination among young workers (15-25y). It is the aim of this study to fill in these knowledge gaps by investigating age discrimination for young workers in the hiring process. Hence, contributing to resolving the issues that prevent young workers from being hired by companies. An experiment was conducted in the Netherlands and South Korea (countries similar in the relevant dimensions to the previously used the UK and Hong Kong respectively). The hypotheses we expect to find for our research questions using statistical analysis are as follows: (H1) in accordance with Snape & Redman (2003), we expect young workers aged 16-25 less likely to be hired than adult workers across cultures. (H2) Willingness to hire an applicant will be moderated by the participant's attitudes towards age: the more negative their attitudes towards younger workers are, the less likely they will be to hire the young worker. (H3) Culture moderates the effect of the age of the applicant has on the willingness to hire of the recruiter. In line with Chiu, Chan, Snape and Redman (2001), in an eastern culture the attitudes towards age will be more positive towards older age and will result in younger workers being less likely to be hired than their counterparts in a western culture.

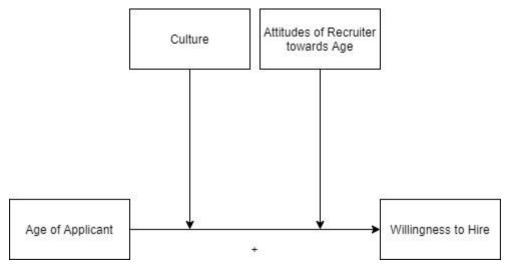


Figure 1. Proposed model of the relationships between age, culture and age attitudes on the hiring process.

#### Method

## **Participants**

The effective research population was made up of N = 131 (83 female, 48 male,  $M_{age}$ = 33.42, SD = 14.31) individuals from the general population of The Netherlands (N=71) and South Korea (N=35), since these locations are readily available to the researcher and represent East and West in the cultural dimensions of Hofstede in a similar way to the UK and Hong Kong used by Chiu, Chan, Snape and Redman (2001). They found eastern and western cultures differed in age discrimination of older workers. This study seeks to examine the age discrimination for young workers instead but expects to find an effect of similar size. To get an idea for the needed sample size we ran an a priori analysis using G\*Power (Erdfelder, Faul & Buchner, 1996) with ALPHA at 0.05. For a power of .80 we needed at least 103 participants in order to detect a medium sized effect. As this might have overestimated the power levels, this study aimed at 150 participants. Our initial dataset consisted of 173 participants. After removing cases with missing values or a failed manipulation check we were left with the final dataset of 131 participants to analyze. Participants were recruited through contacting universities, companies and social media by posting or sending a message asking them to participate in a study on the hiring process and providing them with the survey link.

## Design

We employed a mixed design with culture (west vs. east) and age attitudes as independent between-subject moderators, and age of the applicant (young vs. adult) as

independent within-subject variable. The dependent variable was the willingness to hire the hypothetical applicants.

## **Procedure**

After clicking the survey link, participants could start the survey made in Qualtrics (Qualtrics, Provo, UT). Participants were given the choice to take the survey in English, Korean, or Dutch. Prior to their participation, they received an information letter and a consent form about their rights regarding anonymity and confidentiality. It also contained the expected duration of the survey (5 minutes) and what was expected of them as participants. After reading the form and giving consent, the participants received a short explanation on what the task entailed: rate two hypothetical applicants with each a short description. These descriptions were randomized and counterbalanced and can be found in Appendix A. The applicants were aged 22 and 39 respectively and would be applying to bank teller (neutral type job) or social media app developer (young type job) all randomized and counterbalanced so that every participant would see candidates of both ages, of different stories, and applying to different jobs. After rating the candidates, their age attitudes were measured with the age attitude scale. After this, they were led to the manipulation check. We also inquired about the gender they assumed the gender-neutral-described candidates to be for post-hoc analyses. At the end we asked the participants about their demographics and if they were able to understand the content of the survey. Followed by a thank you message for their participation and information about the aim of the study. There was no time limit on the study and breaks could be taken at any time.

#### Measures

Job type

## Hypothetical applicants

We presented the participants with hypothetical applicants with the specific jobs they were applying for. The age of the applicants was manipulated among two hypothetical applicants: one young worker (aged 22) and one adult worker (aged 39). The applicants were kept gender neutral to eliminate potential gender differences in age discrimination. The stories randomly assigned to these candidates involved either a mention of some work experience or lack thereof to exclude the potential assumption of work experience based on the candidate's age. One candidate will be a hard worker, a fast learner, and enthusiastic to start a new career; the other candidate will have some work experience, a team player with a calm attitude, looking for better prospects. The hypothetical candidate stories can be found in Appendix A.

The jobs the hypothetical candidates applied for were chosen based on research literature on how job types related to age stereotypes. In a study by Morgeson and colleagues (2008) The willingness to hire differed per sector or type of job the applicant was applying for. We chose bank teller as the hypothetical vacancy, since this was considered an age neutral job by (Zaniboni et al., 2019). Additionally, the stereotype that young workers are more creative than their adult counterparts led them to be less discriminated against for young-typed jobs (e.g. involving technology, creativity) (Perry & Finkelstein, 1999). To examine these potential effects, the current experiment will use social media app developer as a second hypothetical vacancy, capturing the two most young-typed worker traits of creativity and working with technology.

## Age attitudes

Attitudes about age were measured with a scale developed by Van Dalen, Henkens & Schippers (2010), involving ratings of workers of different age categories on ten dimensions (e.g. productivity; see Appendix B for the full scale). Based on the question: "To what extent do the following characteristics apply to workers aged 26-40/under the age of 26?" Answers are: 1 = hardly, 2 = somewhat, 3 = strongly and 4 = very strongly and were presented as a matrix table multiple choice format (Appendix B). In our study, participants were asked their opinions about workers twice. The first measure was about adult workers in the 26-40 year old category (10 items,  $\alpha = .82$ ). The second measure included the same measure but for young workers under the age of 26 (10 items,  $\alpha = .84$ ). Due to the scale's high Cronbach's alpha score for both age groups we felt confident the ten items all represented a part of the participant's general attitude towards workers of these age groups. Therefore, we added up the scores on the different dimensions to represent their age attitude towards both young workers and adult workers. For the sake of completeness, it should be stated that our factor analyses found a second underlying factor for some of the attitude dimensions. However, due to the high Cronbach's alpha, we decided to continue with aggregating the items into one factor.

## Willingness to hire

For the dependent variable of willingness to hire, the index of general evaluation developed by Zaniboni and colleagues (2019) was used consisting of 3 items: "My overall impression of this applicant is ..." (1 = very unfavorable; 5 = very favorable); "This applicant is suitable for this job" (1 = not suitable; 5 = very suitable) and "The likelihood that I would invite this person for an interview is ..." (1 = very low; 5 = very high). The participant would drag a slider to the score they found most fitting. These three items were aggregated into one score we treated as the willingness to hire. The high Cronbach's alpha ( $\alpha$  = .78) of willingness

to hire indicates that the three items had a large overlap in the variable they are representing. A higher score on this variable means the participant is more willing to hire the hypothetical candidate.

## Manipulation check

We included a manipulation check for the effect of age. The difference between the candidates was their age: 22 years old and 39 years old. To control for participants not having read or noticed the age difference, we asked them how many of the applicants were under the age of 26 (the correct answer is 1).

## **Demographics**

The self-reported cultural background was asked in a short demographic part of the questionnaire. The participants were asked about their nationality; therefore it was left to the interpretation of the participant whether they answered their country of origin, country of residence, or cultural heritage. The few participants who answered with countries other than Korea or the Netherlands were mostly from west-European countries similar to the Netherlands in cultural dimensions. We chose to group these individuals with the Dutch participants in the 'western' culture category.

## **Data analysis**

We tested the research questions with the aid of SPSS (version 24, IBM Corp 2016). Our independent within subject variable of age (young vs adult) and independent between-subject variable culture (east vs. west) are both categorical and were both analyzed for their moderation effects on hiring likelihood. For the age attitudes we used the aggregated scores for attitude towards young workers and attitude towards adult workers. Our dependent variable of likelihood to hire the candidate consisted of three quantitative separate items, the first being the impression of the candidate (1-5), the second score being the suitability of the candidate (1-5), and third the likelihood they would invite this candidate for an interview (1-5) and these were aggregated into willingness to hire. The hypotheses were tested using Repeated Measures GLM.

## **Results**

## **Preliminary analysis**

Our initial dataset consisted of 173 participants of which 26 did not complete the survey. Of the completed surveys, 3 participants answered 'No' to the question if they understood the contents of the survey, and 14 participants failed the manipulation check (One of which had answered 'No' to understanding). These cases were all removed prior to our

analyses. There was one outlier: a participant who attained a score of 3, which is the minimum, for their willingness to hire the *young* candidate. This participant was not an outlier on any other variable. In addition, the 5% trimmed mean differed from our mean by only 0.07, making the likelihood of this outlier affecting the variable for our analyses extremely low. Furthermore, there was one participant who scored 4 on their willingness to hire the *adult* candidate, which was not considered an outlier for that variable. Therefore, we chose not to remove the outlier from the dataset leaving our final dataset at 131 participants.

## **Assumptions**

For all variables the assumptions of normality did not seem to be violated when the variables' distribution was examined using histograms. Mauchly's test showed sphericity might be violated for the willingness to hire, so the results reported are from Greenhouse-Geisser to correct for the overestimation of the F-values.

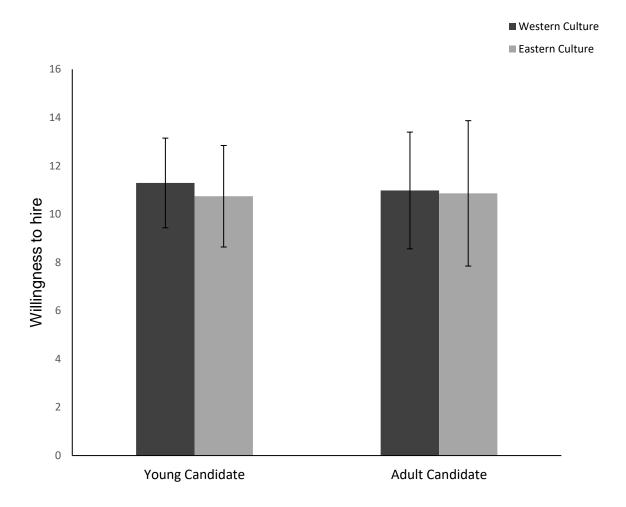
## Main hypotheses

We ran a multivariate repeated measures analysis to test our hypotheses. First, the main effect of applicant age on willingness to hire was not significant (F(1,127) = .337, p = .563,  $\eta_p^2 = .003$ ). In other words, the participants were equally willing to hire the young candidate and the adult candidate. Second, the participants' attitudes towards young workers did not significantly moderate the effect of applicant age on willingness to hire (F(1,127) = .144, p = .705,  $\eta_p^2 = .001$ ); neither did the participants' attitude towards adult workers (F(1,127) = .011, p = .916,  $\eta_p^2 < .001$ ). Meaning that the participants' willingness to hire was not affected by their attitudes about young or adult workers found in Table 1. Third, culture did not significantly moderate the effect of applicant age on willingness to hire (F(1,127) = .651, p = .421,  $\eta_p^2 = .005$ ). Therefore, participants of an eastern culture did not differ significantly from participants of a western culture in their willingness to hire the young or adult worker (Figure 2).

**Table 1** *Age Attitude Descriptives by Culture* 

	Western participants				Eastern participants			
	Young workers		Adult workers		Young workers Adult worke		workers	
	M	SD	M	SD	М	SD	M	SD
Attitude	30.40	4.43	30.30	4.12	27.57	6.15	28.03	5.40

Figure 2
Willingness to hire by Culture



*Note*. Mean willingness to hire on the young candidate do not differ significantly from the mean willingness to hire the adult candidate. The height of the bars is statistically equal; a switch in culture does not change the effect of applicant age. Error bars denote one standard deviation around the mean.

## **Exploratory analyses**

After our multivariate test we ran some exploratory analyses. Firstly, we wanted to explore the moderation effect of each age attitude dimension individually. Accordingly, we ran our Repeated Measures GLM again, this time without aggregating the age attitude scores, keeping all of them as separate independent variables. We found that only the age attitude about *adult* workers, on the dimensions of flexibility (F = 9.865, p = .002) and mental capacity (F = 11.599, p = .001), moderated the effect of age on willingness to hire. More specifically, if participants found flexibility more applicable to *adult* workers, their

willingness to hire the *young* candidate would be lowered ( $\beta$  = -.793, SE = .296, p = .009). For mental capacity, if participants found this dimension more applicable to *adult* workers in general, they would be less willing to hire the *adult* candidate ( $\beta$  = -.887, SE = .429, p = .041) and more willing to hire the *young* candidate ( $\beta$  = .959, SE = .362, p = .009). These findings suggested that participants were making a comparison between young and adult candidates, as their age attitudes about adults was affecting their willingness to hire young candidates. Secondly, we examined if culture affects how people perceive a worker depending on their age (young vs. old) across 10 dimensions (see Appendix B). To test this, we ran a multivariate analysis with culture as independent between-subject variable and the age attitudes as dependent variables. A main effect of culture was found on the age attitudes (F = 4.370, p < .001). The average scores per dimension and their significance level can be found in Table 2.

**Table 2**Age Attitude Dimensions by Culture

	Western participants			Eastern participants				
	Young workers		Adult workers		Young workers		Adult workers	
	M	SD	M	SD	M	SD	M	SD
Reliability	2.63*	.715	3.15**	6.15	2.26*	1.067	2.57**	.778
New Technology Skills	3.70**	.583	2.99	.775	3.06**	.938	2.77	.770
Commitment to Organization	2.69**	.812	3.15**	.740	2.23**	1.031	2.37**	.808
Willingness to Learn	3.53	.615	3.11	.780	3.34	.802	2.91	.853
Social Skills	2.92	.749	3.10	.571	2.66	1.027	3.11	.718
Flexibility	3.21*	8.45	2.85	.767	2.80*	.964	2.91	.951
Accuracy	2.57	.611	2.88	.653	2.40	.914	2.63	.942
Productivity	2.95*	.731	3.10	.640	2.54*	.919	3.06	.802
Mental Capacity	2.83	.721	3.00	.696	3.03	.954	3.00	.804
Creativity	3.38	.653	2.97	.656	3.26	.919	2.69	.963

*Note*. The significant *p* values denote a difference between cultures in the attitudes about that age groups' workers.

<sup>\*</sup> *p* <.05. \*\* p <.01.

## **Possible confounds**

Next, we examined if the type of job the applicant is applying for has an effect on the willingness to hire them. We divided the participants into a *congruent* (young worker applying for social media app developer and adult worker applying for bank teller) and incongruent condition (young worker applying for bank teller and adult worker applying for social media app developer). This variable does not moderate the effect of applicant age on willingness to hire (F = 1.963, p = .164). Meaning that any effects of applicant age on willingness to hire are unaffected by what job they are applying for. Additionally, more participant demographics were examined. Age of the participant did not moderate the effect of applicant age on willingness to hire (F = 1.160, p = .284), neither did the gender of the participant (F = .026, p = .871). Lastly, we explored if the assumed gender of the gender neutral described hypothetical applicant had an effect on the willingness to hire said applicant. The young candidate was believed to be male by 74 participants, female by 44, and nonbinary/third-gender by 13 participants. The adult candidate was believed to be male by 108 participants, female by 16, and non-binary/third-gender by 7 participants. Non-binary/third gender may have been interpreted by participants as a gender neutral answer. For both the young candidate (F = .267, p = .766) and the adult candidate (F = 1.217, p = .300), the assumed gender of the applicant had no effect on the willingness to hire said applicant.

#### **Discussion**

The goal of this study was to examine age discrimination among young workers and culture. We asked participants from western and eastern cultures to rate their willingness to hire two hypothetical candidates described with a short description. The age of the applicant was varied across conditions, their gender kept neutral, the descriptions and job they applied for randomized and counterbalanced. This meant that every participant would see candidates of both ages, of different stories, and applying to different jobs. After rating both candidates, we asked participants about their general perceptions of adult and young workers because we hypothesized these attitudes would have affected their willingness to hire the two candidates. Our study showed that changing the candidate's age did not affect the participants' willingness to hire the candidate, this applied for participants of both eastern and western cultures. Between cultures, there were differences in our participants' perceptions of adult and young workers on several dimensions (i.e., reliability, new technology skills, commitment to organization, flexibility, and productivity). However, the way the participants generally perceived adult or young workers did not make a difference in their willingness to hire the

young or adult candidate. Our exploratory analysis showed that a participant's willingness to hire a candidate did not increase if the candidate applied for a congruent age type job (e.g., a young candidate applying for the position of social media app developer). For demographics, the gender and age of the participant themselves did not have an effect on their willingness to hire the hypothetical candidates. Lastly, the assumed gender of the candidate had no effect on the willingness to hire said candidate. We will discuss our findings individually.

## Age discrimination

Contrary to our expectations, we did not find evidence that the age of the applicant effects the willingness to hire them. We hypothesized that the participants would be less willing to hire the young applicant. The first explanation would be that there is no effect to be found and the age of the applicant is indeed not a predictor for willingness to hire. Theoretically, this would mean that young job applicants are not discriminated against based on their young age. Snape and Redman (2003) found that during the hiring process, young aged workers will be less likely to be hired than their middle aged counterpart. In contrast, a distinction must be made; their study examined the younger workers' perception of discrimination, which led us to hypothesize that this perception is based on a lower willingness to hire this age group. However, their perceptions may not reflect the presence of discrimination in the hiring process. An alternative explanation would be that discrimination can only be detected when the participant is forced to make a binary choice between the candidates. Perhaps the willingness to hire scale we used in our study developed by Zaniboni and colleagues (2019) does not predict the actual hiring decision. In our study, participants were asked to judge and rate candidates individually lacking a binary choice. We had theorized age discrimination would be detectable in the participants' willingness to hire an individual. It could be possible that participants are equally willing to hire candidates of different age groups, but if forced to make a choice, would have a preference for adult aged workers resulting in the discrimination of young aged workers found by Snape and Redman (2003). Methodologically, there could be an effect for age discrimination that we did not manage to detect due to young workers potentially being associated with positive factors we did not include in our measurements. For example, potential longevity of the applicant's career at the hypothetical company the participants were recruiting for. Younger workers have a longer career ahead of them and may conceivably work at a company for longer than can be expected of adult aged workers. Hiring and training a new employee to replace the adult aged worker would be costly for a company in the long run, therefore our participants may have associated the young worker with saving costs for the company in the long run. Additionally,

we did not correct for potential salary for the hypothetical applicants either. Young workers tend to cost less, which, if identical in other ways, could be seen as a benefit to hiring them. It is possible our participants assumed the young applicant would be cheaper to hire, which could counteract the effect of age discrimination. As work experience often comes with age, the differences in work experience might be largely responsible for the perceived age discrimination against young workers. This is supported by the findings of Snape and Redman (2003) in which work experience was put forth as the most important factor and Barling and Kelloway (1999) stating that young people without the required experience face difficulties in gaining meaningful employment. Our current study tried to prevent work experience from affecting the willingness to hire the young or adult applicant, by including a randomly assigned statement. In both stories, either 'a lack of work experience in the current field' or 'a few years of work experience in the field already' was mentioned. It is possible that removing the potential difference in work experience between a young and adult aged worker, also removed the potential age discrimination.

## **Age Attitudes**

Next, general attitudes towards adult or young workers did not affect the willingness of our participants to hire the different aged candidates. Meaning that participants with different perceptions of young or adult workers were equally willing to hire the young and adult applicant. Theoretically, it could be that the attitudes towards workers in general do not translate to individual cases. For example, the participants could have assumptions about young workers and their productivity, but when provided with a short description of an individual young worker, the description of this individual may outweigh their preconceived notions about age groups. The age of the hypothetical applicant might even be overlooked due to information about this individual. Evidence supporting this view are the 14 participants that failed the manipulation check asking how many of the two candidates were under the age of 26. Therefore, the applicant age may not have been considered relevant information by our participants compared to the information contained in the stories. Alternatively, by exploring our data we found that rating some characteristics more applicable to adult aged workers would affect the participant's willingness to hire the young applicant. So, a higher opinion of adult age workers will comparatively make young aged workers less attractive to hire. Similarly, according to our participants the applicability of mental capacity to adult workers predicted willingness to hire both candidates. Unexpectedly, the direction of this effect suggested participants understood the term mental capacity as something negative, a term used for 'mental limit.' If a participant found the term more applicable to adult workers, the

participant would, on average, be more willing to hire the young candidate and less willing to hire the adult counterpart. Our findings about these individual age attitudes also supports the notion that a comparison is made between age groups and the attitude towards one can affect the willingness to hire the other. Lastly, the data of our study was collected during the COVID-19 pandemic. Consequently, it is possible the attitudes towards adult or young workers may have been impacted by the change in work environment. Korea never experienced a lockdown, but The Netherlands and most of Europe were mostly stimulating working from home at the time of data collection. Especially the dimensions of New Technology Skills and Flexibility could have been affected due to this changing work environment with a higher dependency on technology.

#### Culture

Finally, we had predicted young applicants in an eastern culture to be less likely to be hired than their counterparts in a western culture because in an eastern culture the attitudes towards age will be more positive towards older age. Thus, culture would affect the recruiter's willingness to hire different aged candidates. Contrary to our expectations, we found no moderation effect for culture. Therefore, the age of the candidate effected the willingness to hire, independent of which culture the recruiter is from. Chiu, Chan, Snape and Redman (2001) found culture influenced the effect of candidate age for older workers. Theoretically, this suggests a similar cultural effect is absent and there is no difference in age discrimination for young workers in different cultures. Our exploratory analysis showed that culture has a significant effect on the age attitudes. Eastern and western participants differed in their perceptions of adult and young workers as we originally hypothesized, but only on a few dimensions (i.e., reliability, new technology skills, commitment to organization, flexibility, and productivity). However, this difference in perceptions did not carry over to a difference in their willingness to hire the hypothetical applicants. This could be due to the descriptions of the individual candidates outweighing their preconceived notions about the candidate's age group, as mentioned previously. Alternatively, young workers could be more discriminated against by eastern participants, but this effect is countered by the wider educational gap in eastern cultures mentioned by Chiu, Chan, Snape and Redman (2001). This applies especially to South Korea. After the Korean War and during the following military coups in the 1950s and 60s the country saw massive economic growth that has yet to stop (World Bank, 2017). Despite this, the educational reform did not start until the 1980s (Lee, 2014). Currently, South Korea is one of the top performing countries when it comes to education (OECD, 2018). With this in mind, it is possible for an eastern participant to have a lower opinion of the young

worker, but the assumption of access to better education for the younger candidate compared to the adult candidate could counteract this effect. A limitation of our study was that while one of the descriptions of the candidates in our experiment mentioned an unspecified university degree, the other description did not contain an education level and was thus left open to the participant's interpretation. Another methodological limitation to take into consideration was the selection of survey participants may have biased the participant pool. Recruitment was done through the social network of the researcher who has a Dutch nationality, therefore most of the Korean participants have had western foreign social contact prior to this study. Among Koreans this is the exception, not the rule.

#### **Contributions and future research**

Considering our limitations, we propose several adaptations to our design that would improve our confidence in the obtained results. First, turning the willingness to hire into a choice to hire. Recruiters can be willing to hire candidates of any age, but discrimination revolves around being overlooked, rejected, or not considered for a job position. This study already progressed from perceptions of discrimination to practical willingness to hire. However, to strengthen our detection for age discrimination in the hiring process, future research should seek to replicate the real-life situations even more closely. Next, the effect of relevant job experience on workers being hired in the context of age difference should be further examined in age neutral conditions. As work experience often comes with age, it is difficult to manipulate both factors without creating hypothetical candidates that are either unrealistically experienced for their young age or older candidates with such a lack of any work experience that participants start to question if the adult is financially independent or capable of sustaining themselves. Therefore, a cross-cultural age neutral study about the influence of work experience in the hiring process could lead to valuable insights for age related discrimination research. Additionally, Büsch, Dahl & Dittrich (2009) theorized that older workers were less likely to be hired for entry level jobs by their German participants to avoid conflicting with the stronger hierarchy compared to their participants from Norway. Consequently, age related discrimination could be affected by the job level applied for. Likewise, young workers could face more difficulties in obtaining higher level employment. In our study, the lack of job level descriptions may have left this factor open to the assumptions of participants. Future research could classify the hypothetical jobs into varying levels to examine this theory. For age attitude studies, adding a short description of the dimensions to the age attitude scale developed by Van Dalen, Henkens & Schippers (2010) could prevent confusion among participants about their definitions. Additionally, potential

salary, cost for the company, or the expected utility from hiring an applicant should be taken into consideration. As not only the benefits of a potential employee but also their cost to the company is factored into the recruiter's decision to hire an applicant. Our priority to avoid gender affecting the willingness to hire the candidates by keeping them gender neutral prevented us from using images of the hypothetical candidates. In order to emphasize the candidate age, a more elaborate description or an image should be included with the hypothetical candidates. Consequently, this would ensure the participants have acknowledged the age difference in applicants and lets us more confidently detect potential age discrimination for the candidates. Lastly, the hypothetical applicant's education should be stated to counter assumptions about educational level based on age. Aimed towards preventing the generational gaps in education from interfering with detection of cultural effects on age discrimination.

## Conclusion

The COVID-19 pandemic has put young workers at a disproportional disadvantage. All in all, this study has sought to create a foundation for research on discrimination against young workers in the hiring process, exposed some weak points in the research on age discrimination based on perception, and provided a more global perspective on the interactions of age and willingness to hire candidates. Research on this topic could aid in policy making for the hiring process, to protect young workers from unemployment and the ensuing negative effects on their mental health. Legislation is important in protecting the future workforce, but the role of psychological processes is as important, if not more, for succeeding in gaining employment. Analyzing the factors involved will aid in giving everyone an equal chance at carving out a career.

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## Appendix A

#### **Candidate Stories**

## **Condition 1**

The first job applicant is a 22 year old that is eager to get started with a new professional career. Always hard working, sometimes a bit too hard for their own sake. A fast learner when it comes to practical skills and understanding what is needed for any assignment. With a university degree but a lack of work experience in this field, this candidate is applying for the position of social media app developer, requiring creativity and IT skills.

The second job applicant is a 39 year old that has a few years work experience in the field already, but is looking for better prospects. According to coworkers, the candidate is a real team player and willing to do the work nobody else wants to do. Some mentioned the applicant is a good listener but not a very active communicator. With their calm attitude, the candidate is applying for the position of bank teller, requiring attention to detail and good customer service skills.

Als eerste kandidaat is er een 22 jarige sollicitant die enthousiast is om te starten met een nieuwe professionele carrière. Altijd hard aan het werk, soms iets *te* hard ten koste van zichzelf. De kandidaat kan snel nieuwe praktische vaardigheden leren en begrijpt wat nodig is voor elke opdracht. Met een universiteit diploma maar een gebrek aan werkervaring in dit werkveld, solliciteert deze kandidaat voor de functie van sociale media app ontwikkelaar, een baan die creativiteit en ICT vaardigheden vergt.

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첫번째 지원자는 22살이고 열심히 새로운 직업을 찾는 중입니다. 지원자는 가끔은 무리할정도로 항상 열심히 일합니다. 또한 실무 능력과 과제에 필요한 것을 이해하는 부분에 있어서는 빠른 학습자입니다. 지원자는 대학교 졸업을 하고 경험은 없지만, 창의력과 IT 기술이 필요한 SNS 어플리케이션 개발자로 지원하게 되었습니다.

두번째 지원자는 39살이고 이 분야에서 몇년의 경력이 있지만 더 나은 직장을 찾고 있습니다. 직장 동료들에 의하면 지원자는 뛰어난 팀플레이어고 남이 하기 싫은 일도 맡아서 한다고 말했습니다. 몇명은 지원자가 듣는거는 잘하지만 적극적인 커뮤니케이터는 아니라고 했습니다. 지원자는 차분한 성격을 가지고 있고 꼼꼼함과 고객 응대 서비스가 필요한 은행원으로 지원하게 되었습니다.

## **Condition 2**

The first job applicant is a 39 year old that has a few years work experience in the field already, but is looking for better prospects. According to coworkers, the candidate is a real team player and willing to do the work nobody else wants to do. Some mentioned the applicant is a good listener but not a very active communicator. With their calm attitude, the candidate is applying for the position of bank teller, requiring attention to detail and good customer service skills.

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## **Condition 3**

The first job applicant is a 22 year old that is eager to get started with a new professional career. Always hard working, sometimes a bit too hard for their own sake. A fast learner when it comes to practical skills and understanding what is needed for any assignment. With a university degree but a lack of work experience in this field, this candidate is applying for the position of bank teller, requiring attention to detail and good customer service skills.

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## **Condition 6**

The first job applicant is a 39 year old is eager to get started with a new professional career. Always hard working, sometimes a bit too hard for their own sake. A fast learner when it comes to practical skills and understanding what is needed for any assignment. With a university degree but a lack of work experience in this field, this candidate is applying for the position of social media app developer, requiring creativity and IT skills.

The second job applicant is a 22 year old that has a few years work experience in the field already, but is looking for better prospects. According to coworkers, the candidate is a real team player and willing to do the work nobody else wants to do. Some mentioned the applicant is a good listener but not a very active communicator. With their calm attitude, the candidate is applying for the position of bank teller, requiring attention to detail and good customer service skills.

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Appendix B

# Age Attitude Dimensions

# Age attitude adult workers

In your opinion, to what extent do the following characteristics generally apply to workers aged 26-40?

	Hardly	Somewhat	Strongly	Very Strongly
Reliability	О	0	О	0
New Technology Skills	0	O	O	0
Commitment to Organization	0	O	O	0
Willingness to Learn	0	O	O	0
Social Skills	0	O	O	0
Flexibility	0	O	O	0
Accuracy	0	O	O	0
Productivity	0	O	O	0
Mental Capacity	0	O	O	0
Creativity	O	0	0	O

# Age attitude young workers

In your opinion, to what extent do the following characteristics generally apply to workers to workers under the age of 26?

	Hardly	Somewhat	Strongly	Very Strongly
Reliability	0	0	О	0
New Technology Skills	0	O	O	0
Commitment to Organization	0	O	O	0
Willingness to Learn	0	O	o	0
Social Skills	O	0	O	0

	Hardly	Somewhat	Strongly	Very Strongly
Flexibility	0	O	О	0
Accuracy	0	O	О	0
Productivity	0	O	О	0
Mental Capacity	0	O	О	0
Creativity	0	О	O	0