

1 The Effect of Biological Sex and Gender Expression on Hireability of Entry-Level Job

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Abstract

10

11 Our study was designed to investigate the effect of biological sex and gender expressions on
12 hireability of an entry-level job. A sample of 104 participants (most of whom were college
13 women) took an online survey where they were asked to act as a retail employee in a short
14 vignette describing a customer. They were then asked to rate the hireability of the customer.
15 We conducted a 2x2 between-subjects factorial design to test those effects. We found no
16 significant main effect of biological sex or gender expressions. There was no interaction effect
17 of biological sex and gender expressions either. Implications and directions for future
18 research were discussed.

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22 Although many people have been calling for gender equality in employment, gender
23 stereotypes have persisted to disadvantage women in hiring process, grounded not only on
24 the biological sex but also on the perceived masculinity and femininity ?. It is of increasing
25 significance to understand how people's masculine and feminine traits are perceived and
26 evaluated by others in the hiring process, to add on our knowledge of existing gender-based
27 discrimination. To this end, the current study uses an experimental research method to
28 examine how hiring decisions are impacted by both the biological sex and the gender
29 expressions of potential employees. Previous studies have demonstrated that female
30 applicants are viewed as less hireable than male applicants are (Harvie, Marshall-Mcaskey,
31 and Johnston (1998)??), and applicants who show feminine traits are viewed as less hireable
32 than applicants who show masculine traits (Hareli, Klang, and Hess (2008)??). An
33 experimental study conducted by Harvie et al. (1998) showed that participants tended to
34 assign lower-status, lower-salaried jobs to female applicants compared to male applicants
35 when the participants themselves acted as job applicants reviewing their peers. However,
36 they tended to make fairer and more socially desirable decisions when acting as employers to
37 avoid being labeled as sexist. Hareli et al. (2008) experimental study indicated that
38 femininity inferred from male applicants' job history were viewed as an unfavorable
39 characteristic in the hiring process. In their experiment, male applicants who had had a
40 gender atypical job were considered less suitable for future gender typical jobs, although both
41 male and female applicants who had occupied a job that is stereotypically occupied by the
42 opposite sex were evaluated as more competent for another gender atypical job. This calls
43 for explorations into the more complicated gender expressions of humans. Horvath and Ryan
44 (2003) study on sexual orientation-based discrimination in the hiring process showed that the
45 direction of discrimination was more noticeably toward femininity than to non-conforming
46 gender expressions. In their experiment, participants viewed the resumes of people indicated
47 as heterosexual and gender conforming or homosexual and gender non-conforming. The

48 results showed that non-conforming applicants were evaluated significantly less positively
49 than conforming men but more positively than conforming women. Plake et al. (1987) found
50 that breaking gender roles could lead to positive evaluations. In their experimental study,
51 the researchers found that, between the two levels of counseling psychologists, directors and
52 counselors, participants tended to assign applicants with gender-atypical traits to the
53 leadership roles most possibly because they were viewed as more flexible and with a wider
54 breadth of skill, even though all applicants had identical credentials. Contradictory literature
55 exists regarding this issue because people's non-conformance of gender and gender roles can
56 be viewed tremendously differently depending on the extent of viewers' beliefs in traditional
57 gender roles (Horvath and Ryan (2003)??). Past literature on hiring bias have demonstrated
58 a general favorability of male applicants, presented a vague general favorability of masculine
59 traits (Harvie et al. (1998); Horvath and Ryan (2003)??), and yielded mixed results of
60 people's attitudes toward biological sex and gender expression non-conforming applicants.
61 There has been little research thus far on how biological sex and gender expressions each
62 have impact on hiring decisions of an entry-level job and how masculinity and femininity
63 have different extents of effects on each gender. To investigate this, we sent out a survey
64 with four vignettes each featuring one customer at the checkout counter of a retail store.
65 The four customers only differ in biological sex and gender expressions, manipulated with
66 names and purchases. We predicted that there would be a main effect of biological sex, such
67 that participants would be more likely to offer employment opportunity to male customers
68 than female customers. We also predicted that there would be a main effect of gender
69 expression, such that participants would be more likely to offer employment opportunity to
70 customers who showed more masculine traits than customers who showed more feminine
71 traits. Finally, we predicted that there would be an interaction effect of biological sex and
72 gender expression, such that gender expressions would have a larger effect on male than on
73 female. We thus expected to find that participants would be more likely to hire masculine
74 female customers than feminine male customers.

Methods

Design

In order to test the effects of biological sex and perceived gender presentation on hireability, we used a 2 (biological sex: male, female) x 2 (gender expression: masculine, feminine) between-subjects factorial experimental design. The independent variables manipulated in the study were biological sex and gender expression. Participants were presented with one of the four short vignettes we created, in which they were asked to act as the retail employee and decide on whether or not to give the customer an advertisement for employment opportunities with the store. The only differences in the vignettes were the biological sex and gender expression of the customer. The dependent variable was the likelihood of the customer being hired.

Participants

Participants were recruited through convenience sampling by posting a link to the online survey both on the Smith College Participant Pool and on Facebook for anyone to click and share. Of the 109 participants, 6.7% identified themselves as male, 77.9% identified themselves as female, and 7.6% identified as queer, transgender, or other, 1.9% of participants chose not to answer and 5.8% either left the space blank or entered an unusable answer. Participant age ranged from 18 to 60, with an average of 20 and a standard deviation of 5.83. Nine participants chose not to give their age or entered an unusual answer (e.g., “junior”, “400”, “0”, “2019”). These participants, and those under the age of 18 were not counted. By using convenience sampling, our sample had a large portion of participants that identified as females in their late teens. In addition, 41.3% of our participants identified as White, 7.7% identified as black or African-American, 27.9% identified as Asian, and 8.7% of our participants identified as Latino. 5.8% identified as Native Americans, while 2.9% filled in the “Other” box, mostly to account for multiracial identities for which we failed to provide an option. 5.8% did not answer the race question. After clearing out unusable

101 responses, 50 participants were assigned to the male customer condition, 54 were assigned to
102 the female customer condition, 51 participants were assigned to the masculine condition and
103 53 were assigned to the feminine condition.

104 **Material**

105 To test the hireability of different customers, we created four vignettes each featuring
106 one particular customer, varying in information by the different levels of the independent
107 variables (i.e., a masculine male, a feminine male, a masculine female, a feminine female).
108 We created a scenario in which the customer casually complains about something personal
109 associated with the item he or she is intending to buy. They behave nicely and politely
110 throughout the process of checking out. To manipulate the gender of the customer, we used
111 the name Michael for the male and Michelle for the female. For the manipulation of gender
112 expression, we changed the items the customer bought and the activities the customer was
113 involved in. Masculinity was indicated by the customer buying protein shakes and dumbbells
114 and mentioning an injury obtained working out in the gym preparing for football season.
115 Femininity was indicated by the customer buying lotion and eyeliner and mentioning his or
116 her make-up.

117 Hireability was measured by three questions assessed on a Likert scale of 1 to 7. The
118 first question was “How likely are you to give this person the employment advertisement?” (1
119 = Not at all likely and 7 = Extremely likely). The second question was “How much do you
120 hope this person gets hired?” (1 = Not at all and 7 = Extremely). The third question was
121 “How well do you think this person will do if they are hired?” (1 = Extremely poor and 7 =
122 Extremely well). The three questions reached high internal consistency ($\alpha = .$). Additionally,
123 participants were asked to rate their customer on seven traits and the importance of each of
124 the seven traits for a retail employee, on a Likert scale of 1 to 7 (1 = Not at all and 7 =
125 Extremely). The seven traits are friendly, talkative, approachable, efficient, physically strong,
126 considerate and calm under pressure. We didn’t use the answers of the two questions for any

127 analysis.

128 **Procedure**

129 A questionnaire, via a Qualtrics Survey, was posted on social media (Facebook) and
130 the Smith College Participant Pool. After the participants consented and confirmed that
131 they were older than 18, they got assigned to a random experimental condition and were
132 presented with a vignette in which the customer is either a masculine male or female or a
133 feminine male or female. After reading the vignette, the participants were asked the five
134 above-mentioned questions, three assessing hireability and two evaluating traits, on a scale
135 ranging from 1 to 7. Participants were also asked the biological sex and gender expression of
136 the customer as a manipulation check. They finished the survey by answering demographic
137 questions on their age, gender, and race/ethnicity.

138

Results

139 In this study, we investigated how biological sex and gender expression would affect the
140 likelihood of being hired for an entry-level job. First, we hypothesized that there would be a
141 main effect of biological sex, such that participants would be more likely to hire a male
142 customer than a female customer. Second, we hypothesized that there would be a main
143 effect of gender expression, such that participants would be more likely to hire a masculine
144 customer than a feminine customer. Finally, we hypothesized an interaction of biological sex
145 and gender expression, such that participants would be more likely to hire a masculine
146 woman than a feminine man.

147 A two-way ANOVA was used to test if biological sex and gender expression had an
148 effect on hireability. There was not a statistically significant main effect of biological sex on
149 hireability, $F(1, 100) = 0.07, p = 0.79$. Participants' scores on hireability of male applicants
150 ($M = 4.59, SD = 1.32$) were higher than participants' scores on hireability of female
151 applicants ($M = 4.53, SD = 1.12$), but not significantly so. There was no statistically
152 significant main effect of gender expression on hireability, $F(1, 100) = 0.23, p = 0.63$.

153 Participants' scores on hireability of feminine applicants ($M = 4.62$, $SD = 1.24$) were higher
154 than participants' scores on hireability of masculine applicants ($M = 4.5$, $SD = 1.19$), but
155 not significantly so. There was not a statistically significant interaction of biological sex and
156 gender expression on hireability, $F(1, 100) = 1.45$, $p = 0.23$. The four condition means are
157 displayed in Figure 1.

158

Discussion

159 Our results did not show that biological sex or gender expressions had any effect on
160 how likely a person got hired. Our results did not show that there was any interaction of
161 biological sex and gender expressions on how likely a person got hired either. In our first
162 hypothesis, we predicted that there would be a main effect of biological sex, such that male
163 customers would be more likely to get the employment opportunity than female customers.
164 Our findings did not support this hypothesis as the result was not found statistically
165 significant. The results did show that the hireability of male customers were slightly higher
166 than the hireability of female customers. This is consistent with findings in the Harvie et al.
167 (1998) study that female applicants were viewed as less hireable than male applicants when
168 participants acted as peer employees. The Harvie et al. (1998) study also showed that when
169 participants were aware of hiring bias against women, they tended to make fairer decisions to
170 seem unbiased. This might partly explain why hiring bias against women was not found
171 significant in our study as it is possible that participants detected the purpose of our study
172 and gave more socially desirable answers. In our second hypothesis, we predicted that there
173 would be a main effect of gender expression, such that customers who showed more
174 masculine traits would be more likely to get the employment opportunity than customers
175 who showed more feminine traits. Our findings did not support this hypothesis. Our results
176 showed that the hireability of feminine customers were slightly higher than the hireability of
177 masculine customer, although not significantly so. This is contrary to those found in Hareli
178 et al. (2008) study which showed that perceived femininity inferred from male applicants'

179 career history made them less suitable for future male-typed jobs. The study suggested that
180 this was related to the belief that jobs that were perceived as suitable for women were also
181 perceived as less prestigious and tended to pay less than jobs that were perceived as more
182 suitable for men. In our study, the job (retail employee) for which the participants were
183 ostensibly recruiting was supposed to be a gender-neutral job. However, it is still possible
184 that as an entry-level job, retail employee was viewed as a more feminine job, thus led
185 participants to rate customers who showed more feminine traits to be more hireable, though
186 not significantly so. In our final hypothesis, we predicted that there would be an interaction
187 effect of biological sex and gender expression, such that participants would be most likely to
188 hire masculine male customers and least likely to hire feminine female customers, and more
189 likely to hire masculine female customers than feminine male customers. This hypothesis was
190 not supported by our results. Our results showed that feminine male customers were most
191 likely to be hired and masculine male customers were least likely to be hired, and masculine
192 female customers were more likely to be hired than feminine female customers. All the
193 differences between the scores on hireability were slight and not found significant. Our
194 findings are contrary to the findings in the study conducted by Horvath and Ryan (2003)
195 that gender non-conforming applicants were evaluated less positively than masculine men
196 but more positively than feminine women, while masculine women and feminine men didn't
197 differ in scores on hireability. Our results were also contrary to the findings in the study
198 conducted by Hareli et al. (2008) that male applicants who showed femininity were viewed
199 as least hireable, since we found feminine men the most hireable in our study. These two
200 studies both suggested that this was related to people's beliefs about gender roles. Hareli et
201 al. (2008) study further suggested that while women have been altering the boundaries of
202 gender typical jobs by pushing into work domains and positions traditionally occupied by
203 men, men have not been doing the same that much, therefore men who have occupied a
204 female sex-typed job might be perceived as less competent. It is possible, however, that our
205 findings are different because that was an older study and people's beliefs in gender roles

206 have changed, over the past few years, and become generally more favorable to gender and
207 gender role non-conforming people. It is also possible that people in our sample hold less
208 conservative beliefs about traditional gender roles than the general population. Our findings
209 were also supported by the study conducted by Plake et al. (1987) which found that gender
210 and gender role non-conforming applicants were viewed more positively than conforming
211 applicants as those who broke gender roles were viewed as more flexible and with a wider
212 breadth of skill. This is consistent with our findings that feminine men and masculine
213 women were rated as more hireable than feminine women and masculine men, though not
214 significantly so. There are a number of limitations of our study that must be acknowledged.
215 First among them is the generalizability of the results. We used a convenience sample and a
216 large proportion of our participants were college students who were relatively young, the
217 average of the participant age being 20. In addition to the age of our participants being a
218 limitation, 77.9% of our participants were female, although the overrepresentation of female
219 in our sample did not lead to a general favorability of female customers over male customers
220 in results. Our sample did not accurately represent the population we targeted and thus
221 caused a decreased external validity. Another limitation is the manipulation of the gender
222 expressions of fictional customers. We only used one purchase and one personal fact to
223 indicate each customer as masculine or feminine and there might not have been enough
224 information for the participant to form a relatively comprehensive judgment of the gender
225 expressions of the customer. There is also a limitation about the measurement of the
226 hireability. We only asked the participants about their willingness to offer the customer an
227 advertisement for employment opportunities with the store and that might have been a
228 much more casual decision than an actual hiring decision. Although our measurement
229 achieved high reliability, the validity was not ensured. Future research on the subject of
230 biological sex and gender expressions in hiring bias will need to use a more representative
231 sample of the population and include more participants. It would be beneficial to use
232 resumes to include more information of the potential employees and ensure the legitimacy of

233 the measurement of hireability. It would also be important that future research use
234 comparisons of gender-neutral jobs and sex-typed jobs or entry-level jobs and higher-level
235 jobs, to further examine the effects of biological sex and gender expressions on hiring
236 decisions on a larger picture. Furthermore, we also expect to see future studies look into how
237 beliefs about gender roles could be shaped by education to mediate hiring discrimination.
238 Overall our results showed that there were no significant differences between the hireability
239 of masculine male, feminine male, masculine female and feminine female. This finding is
240 contrary to some previous research but could indicate that hiring bias against female,
241 feminine expressions and gender and gender role non-conforming people has been decreasing
242 as a whole. We hope that this study, investigating how gender and gender expressions
243 stimulate hiring bias, will spark future research on the issue.

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