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Are Evaluations of a Training Course Proposal Influenced by the Gender of the Instructor?

Czy płeć trenera wpływa na oceny propozycji szkolenia?

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Abstract:

The influences of instructor gender, participant gender, age and perceived importance of the certificate offered on evaluations of a training course proposal were examined. Participants evaluated an identically described training course proposal with either a male (n = 60) or female (n = 65) instructor. Results revealed that instructor gender, participant gender and age made a difference to evaluations of the proposed course. Evaluations of female participants were quite egalitarian while males, particularly those in the older group (greater than 27 years), revealed a strong gender bias in evaluating the training course proposal.

Keywords: gender bias, evaluator age, evaluator gender, training evaluations.

Streszczenie:

W przeprowadzonym badaniu analizowano wpływ płci trenera, płci uczestnika, wieku i postrzeganej wagi certyfikatu na ocenę propozycji szkolenia. Uczestnicy oceniali identycznie opisaną propozycję szkolenia z trenerem mężczyzną (n = 60) lub kobietą (n = 65). Wyniki wykazały, że płeć trenera, płeć uczestnika i wiek wpływały na ocenę proponowanego kursu. Oceny badanych kobiet były dość egalitarne, podczas gdy oceny mężczyzn, szczególnie tych w relatywnie starszej grupie (powyżej 27 lat), ujawniały silne uprzedzenia związane z płcią w ocenie propozycji szkolenia.

Słowa kluczowe: dyskryminacja ze względu na płeć, płeć oceniającego, wiek oceniającego, ocena szkolenia.

1. Introduction

If you wanted to improve your customer service skills, how would you choose a training course? It is likely that you would find the instructor's gender important, although, like many people, you would be likely to deny being influenced by factors other than the content of the proposed course and the instructor's qualifications. There are strong reasons to believe that the same training course proposal would be evaluated differently depending on whether the instructor is female or male.

One stream of evidence of prejudice towards women in the workplace comes from research on evaluations of female academic scientists and

teachers (e.g., Moss-Racusin *et al*., 2012; Boring, 2017). Works by female authors are evaluated less favourably in non-blind reviews: papers with a woman as the first author have a lower chance of being published (Budden *et al*., 2008), and gender bias has been found in grant award procedures (Bornmann, Mutz, Daniel, 2007). Also, students declare higher satisfaction with courses taught by male academics even though the teaching effectiveness of male and female instructors is the same (Boring, 2017). They evaluate a lecture more highly when they believe it is delivered by a male rather than a female academic (MacNell, Driscoll, Hunt, 2015). Similar bias is observed in business: women leaders are more unfavourably evaluated than their male counterparts (Heilman, Block, Martell, 1995), equally competent female applicants have a lower chance of being hired than males (Moss-Racusin *et al*., 2012), and they need to demonstrate higher achievement to be evaluated similarly to men (Heilman, Haynes, 2008; Wenneras, Wold, 1997).

The above differences are usually explained by gender role theory (Eagly, 1997). This theory assumes that males and females have different roles within social structures and these roles evoke expectations concerning the appropriate behaviour of men and women. Women are expected to behave in line with communal qualities, i.e., be sympathetic, supportive, caring, friendly, etc. In contrast, men's behaviour is expected to demonstrate agentic qualities, i.e. confidence, ambition, dominance and assertiveness (Eagly, Karau, 2002). These expected tendencies make females and males predisposed to certain careers requiring the relevant traits. Thus, when a person chooses a career incompatible with the qualities ascribed to their gender, they are perceived as less competent and less efficient at performing their job. Since primary school teachers are predominantly women (according to UNESCO data, 64% of primary school teachers in the world are females[1]), it seems likely that an early years teaching career is compatible with feminine stereotypes. However, as seen in university students' evaluations, at higher stages of education, teaching seems to be less compatible with stereotypically female roles.

The contemporary job market requires constant learning and the acquisition of new competencies. This has resulted in an increasing number of training course offers for potential trainees and increasing demand for effective instructors. This naturally prompts the question: are women who choose a career in training fairly rewarded? There are strong reasons to believe that this might not be the case. Due to the aforementioned gender bias, female instructors may well be evaluated less highly than their male counterparts. Furthermore, undervaluing women as instructors might put them in a disadvantageous position when attracting new clients for their training courses. Thus, the questions of whether female training instructors are fairly evaluated in the role of instructor and whether a training course proposal from a female instructor, who is just as competent as a male instructor, is evaluated similarly, are of great interest, as is the identification of factors that can decrease potential bias.

To the best of our knowledge there is no research on gender bias in evaluations of training course proposals. Such evaluations are particularly interesting in the context of possible differences in the mind-set of the evaluator when making an evaluation. In the case of evaluations of university courses, scientific papers, and grant

[1] https://data.worldbank.org/indicator/SE.PRM.TCHR.FE.ZS (date of access: 5.01.2017).

or job applications, the evaluator takes the position of an impersonal judge who will not be personally affected by the evaluation[2]. The situation is different for evaluators of a training course proposal since the consequences of the evaluation are of greater personal relevance. Training offers something with greater real-life consequences, having potential benefits for the proposal's evaluator. Thus, it seems reasonable to assume that people are more likely to adopt a more abstract mind-set when their evaluations are more impersonal and a more concrete mind-set when evaluations are of greater personal relevance. According to construal level theory (Trope, Liberman, 2010), people adopt either a concrete or abstract level of thinking about objects, actions, etc., and the level of thinking adopted affects their judgments and choices. When in an abstract mind-set, they use general rules and abstract knowledge to make judgments and decisions. Gender stereotypes form part of such rules and knowledge. Thus, people might display more gender bias when they evaluate others in an impersonal way.

However, when, because of personal relevance, people think of events in a more concrete way, they are less prone to rely on general rules and abstract knowledge, and may therefore be less prone to rely on gender stereotypes when making a judgment. Personal relevance might be increased by a person's characteristics such as age, since certain goals might differ in significance at different life stages (see, e.g., Levinson *et al.*, 1976; Wortley, Amatea, 1982). Similarly, potential differences in susceptibility to gender bias in evaluation, depending on value attached to the object of evaluation, would be compatible with the distinction between System 1 and System 2 type of information processing (Stanovich, West, 2000; Kahneman, 2012). These two modes of thinking are variously activated under specific conditions. Intuitive and automatic System 1, relying on cognitive shortcuts, is observed in tasks of little personal importance while reflective and reasoned System 2, not prone to reliance on biases and stereotypes, is observed in tasks of high importance to the person. Thus, since choosing a training course that would improve one's position on the job market seems to be a task of relatively higher importance than a simple evaluation of others' performance, operation of System 2 and subsequently lesser susceptibility to gender bias would be expected when people evaluate a training course proposal.

The purpose of the present study was two-fold. First, to see whether an instructor's gender influences perceptions of their competence and subsequently the attractiveness of a training course proposal made by them. Second, to see how an evaluators' gender and age, and the importance of the training certificate involved, influence gender bias towards an instructor and evaluations of their training proposal. We expected that:

H1: Gender bias would be observed in training course proposal evaluations. A proposal with a female instructor would be evaluated lower than the same proposal with a male instructor.

Further, we expected it to be dependent on the evaluator's characteristics. Assuming that acquiring new job competencies is relatively more important when one is younger than when one is older (since in the latter case one has al-

[2] Of course, in the case of hiring decisions, the evaluator will be affected by the consequences of their evaluation and decision, but still this impact will not be personal: the personal life of the evaluator/decision-maker will not change much as a result of the quality of the evaluation/decision. Rather, the organisation hiring a person, not the evaluator personally, will benefit more or less depending on the quality of the evaluation/decision.

ready reached a certain position in the job market), it was expected that:

H2: Younger participants would show less gender-related bias in their evaluations of a training course proposal, i.e. differences in proposal evaluations due to the gender of the instructor would be much weaker in the subsample of younger participants than in that of older ones.

H3: Participants who attached more importance to the certificate offered by the training course would reveal less gender-related bias in their evaluations of a training course proposal, i.e. differences in proposal evaluations due to the gender of the instructor would be much weaker in the group of participants attaching more importance than in the group attaching less importance to the certificate offered by the training course.

It was also expected that:

H4: The importance attached to the certificate offered by the training course would be negatively correlated with the participants' age.

Also, though some degree of interaction between the evaluator and the evaluated person's gender is reported, results are mixed (see e.g. Hancock, Shannon, Trentham, 1993; Rice, Barth, 2016; Boring, 2017). Thus, no hypothesis was put forward concerning the impact of the evaluator gender on the susceptibility to gender bias in the training course proposal evaluation, though the impact of this variable was controlled in the analyses.

2. Method

2.1. Participants

One hundred and sixteen participants took part in the study, of which 60 were female. They were either part-time students of one of the universities in Warsaw and their friends. All of them were working at the moment of the study, though they were not asked for the number of years of work experience. Participants' mean age was 28.89 years (SD = 7.56). Twenty one people had only a high school education, the rest had a university degree. Participants took part in the study voluntarily, no compensation being given for their time. There were no significant age differences between group with male and female instructor (M = 28.02, SD = 5.87 and M = 29.82 and SD = 8.99 respectively, $t(114) = 1.29$, $p = 0.20$). Neither there were significant differences in in frequency of participant gender for the two groups – $\chi^2 (1, N = 116) = 1.71$, $p = 0.19$.

2.2. Materials and Procedure

Participants were asked to read a proposal for a training course in professional customer service and selling techniques and evaluate it on the scales provided. A detailed description of the training course included information on the topics covered by the course as well as descriptions of the instructor's competencies and professional experience. After examining the proposal, participants evaluated it by indicating on a 7-point scale (1 – definitely disagree, 7 – definitely agree) how much they agreed with the following statements:

– The course offers training in competencies which are in great demand in the Polish job market.

– The training programme looks attractive.

– The number of topics per day on the training course is optimal.

– The trainer is highly qualified.

– The trainer has considerable professional experience.

– The cost of the training is fair.

– The methods chosen to attain the training course's goals are appropriate.

All seven judgments concerning perceptions of the training course proposal and evaluations of the instructors were highly correlated and were therefore combined into one measure[3] (a mean of seven evaluations): training course proposal evaluation (Cronbach's $\alpha = 0.85$).

Participants were recruited via email using the snowball method. When participants opened a link to the study they were randomly assigned to either a female or male instructor version of the questionnaire. On completing the questionnaire, they provided demographic information about their age, gender, education and the importance they attached to obtaining a training certificate as described in the course proposal. The importance of the certificate was measured with one item. Participants indicated on a 7-point scale (1 – definitely disagree, 7 – definitely agree) how much they agreed with the statement: The certificate confirming completion of such a course would be valuable for me.

[3] Factor analysis with Varimax rotation and using Kaiser's criterion revealed a two-factor solution explaining 68.91% of item variance. Factor 1 consisted of five variables: The trainer is highly qualified; the trainer has considerable professional experience; the course offers training in competencies in great demand on the Polish job market; the training program looks attractive; the methods chosen to attain the training course's goals are appropriate (Cronbach's $\alpha = 0.87$). Factor 2 consisted of two variables: The cost of the training is fair; the number of topics per day on the training course is optimal (Cronbach's $\alpha = 0.61$). Since the two factors' loadings did not differentiate evaluations of the instructor and evaluations of the training course's appeal, and the two factors were reasonably highly correlated ($r(114) = 0.48$, $p < .001$), a one-factor solution was accepted.

3. Results – Perceptions of Training Course Proposal Attractiveness and Instructor Competencies

As can be seen from Table 1, confirming hypothesis 1, the female instructor's proposal was evaluated less favourably than that of the male instructor.

Next, moderation analysis with 10,000 bootstrap samples and 95% CIs using A. F. Hayes' procedure (2013) was conducted, to test whether susceptibility to the gender bias would be influenced by the age of the participants (younger participants were expected to reveal much weaker susceptibility to the bias than older ones). A model was statistically significant and explained 29.4% of the variance in training course proposal evaluations ($R^2 = 29.4$, $F(3, 112) = 15.57$, $p < 0.001$). Results revealed significant main effect of the participants' age and an interaction effect between age of the participants and the gender of the instructor on the training course proposal evaluation (Table 2).

To decompose the interaction effect Johnson-Neyman technique (Hayes, 2012) was used, revealing 26.43 years as the point above which differences in the training course proposal evaluations due to the gender of the instructor became statistically significant. Thus, confirming hypothesis 2, older participants were more susceptible than younger ones to gender bias in their evaluations of the proposal.

Similar moderation analysis was conducted to test whether susceptibility to the gender bias would be influenced by the importance attached to the certificate offered by the course. The model was statistically significant and explained 22.6% of the variance in training course proposal evaluations ($R^2 = 22.6$, $F(3, 112) = 10.92$, $p < 0.001$).

Table 1. Results of Independent Sample t-tests for Differences in Training Course Proposal Evaluations and the Importance Attached to Obtaining a Certificate Offered by the Course between Groups where Training Was Said to Be Provided by a Female (n = 56) vs. a Male (n = 60) Instructor

Specification	Female instructor *M* (*SD*)	Male instructor *M* (*SD*)	*t*	*p*	*d*
Proposal evaluation	4.72 (1.00)	5.24 (0.87)	2.97	0.004	0.55
Certificate importance	5.32 (1.56)	5.31 (1.80)	0.01	0.988	0.00

Table 2. The Impact of Instructor Gender and Participant Age on Evaluations of the Training Course Proposal

Independent variable	Training proposal evaluation					
	B	*se*	*t*	*p*	Δ R^2	95% boot CI
Instructor gender (A)	0.84	0.65	1.30	0.197	–	[–0.446; 2.133]
Participant age (B)	–0.07	0.01	–5.75	0.000	–	[–0.096; –.047]
A x B	0.17	0.09	1.99	0.049	2%	[0.001; .343]

Table 3. The Impact of Instructor Gender and Perceived Importance Attached to Obtaining the Certificate on Evaluations of the Training Course Proposal

Independent variable	Training proposal evaluation					
	B	*se*	*t*	*p*	Δ R^2	95% boot CI
Instructor gender (A)	–1.41	0.52	–2.59	0.011	–	[–2.483; –0.332]
Certificate importance	0.14	0.06	2.78	0.025	–	[0.019; 0.267]
A x B	0.17	0.10	1.71	0.090	0%	[–0.026; 0.360]

However, the interaction between the instructor's gender and the importance attached to the certificate was not significant (Table 3). Thus, hypothesis 3 was not confirmed.

Participants generally ascribed quite high importance to obtaining such a certificate, with a mean importance of more than 5 on the 7-point scale and a median of 6 (only 24.1% of participants chose the midpoint of the scale or lower). As expected, perceived importance of the training certificate and participant age were significantly correlated ($r(114) = -0.33$, $p < 0.001$), with less importance being attached to obtaining the certificate offered by the course as age increased. Thus, hypothesis 4 was confirmed.

Additionally, it was examined whether gender of the participants mattered for the importance attached to the certificate offered by the course. It turned out that women attached more importance than men to obtaining the certificate offered by the course ($M = 5.82$, $SD = 1.52$ vs. $M = 4.83$, $SD = 1.69$ respectively), $t(114) = 3.32$, $p = 0.001$.

Because, as shown by moderation analysis, the interaction between instructor gender and participant age was significant, separate

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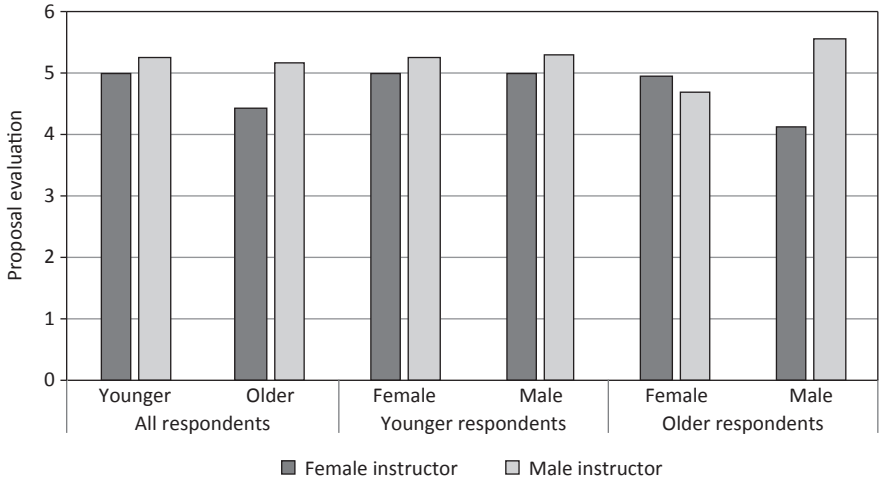

Figure 1. Training Course Proposal Attractiveness as a Function of Instructor Gender for the Younger (*n* = 63) and Older (*n* = 53) Subsamples

ANCOVAs were performed for younger and older participants, to further examine what influenced evaluations of the training course proposal in these two subsamples. Though no hypothesis was put forward concerning the impact of evaluator gender on the susceptibility to gender bias in training course proposal evaluation, to control possible influence of this variable, evaluator gender was also included in the analyses.

Analyses revealed differences in the variables influencing younger and older participants' evaluations of the training course proposal. For younger participants, the only significant effect was that of the perceived importance of the certificate offered by the training, $F(1, 58) = 13.68$, $p < 0.001$, $\eta^2 = 0.194$. However for older participants, in addition to an effect of certificate importance, $F(1, 48) = 5.67$, $p = 0.021$, $\eta^2 = 0.11$, there was a significant effect of instructor gender $F(1, 48) = 7.72$, $p = 0.008$, $\eta^2 = 0.14$, and a significant interaction between instructor gender and participant gender ($F(1, 49) = 6.75$, $p = 0.012$, $\eta^2 = 0.12$).

Further, planned contrasts revealed significant differences in line with gender bias only for male participants. As seen in Figure 1, men evaluated the proposal by the female instructor less favourably than the same proposal by the male instructor ($p < 0.001$, 95% CI [–2,15; –0.82]). Moreover, proposal evaluations of men in the older subsample did not only differ from those of women in their age group but also from the evaluations of men in the younger subsample. These differences only concerned evaluations of the training course proposal of the female instructor, with older men's evaluations of this proposal being significantly lower than those of younger men ($t(29) = –2.26$, $p = 0.031$, $d = 0.78$).

Women in the older subsample evaluated the proposal by the female instructor very much the same as women in the younger group. However,

[4] Correlations between training course proposal evaluations and certificate importance were $r(61) = 0.42$ $p = 0.001$ in the group of younger participants and $r(51) = 0.27$, $p = 0.051$ in the group of older participants.

they differed to some extent in their evaluations of the male instructor's proposal, evaluating this proposal less favourably than their younger counterparts, although this difference fell short of statistical significance ($t(31) = 1.84$, $p = 0.075$).

4. Discussion

The study yielded three important results. First, as expected, in line with the previous literature on gender bias, both the gender of the instructor and the gender of the evaluator were important in evaluations of the training course proposal. Confirming our first hypothesis, the same proposal was evaluated less favourably when it was said to come from a female instructor than when it was said to come from a male instructor. However, this difference was driven by the male participants' ratings. Female participants were more egalitarian and perceived the proposal similarly, independently of the instructor's gender.

Second, an important factor in proposal evaluations was the participants' age. Proposal evaluation became less favourable with age. Similarly, the importance attached to obtaining a certificate of the type offered by the training course decreased with age, confirming our fourth hypothesis. However, the effect of participant age interacted with participant gender and instructor gender. The evaluations of younger male participants did not differ significantly from those of their female counterparts. The strongest influence of instructor gender upon training course proposal evaluations was found for older males. Thus, confirming our second hypothesis, younger people were less prone to gender bias in their evaluations. This result is interesting for two reasons. One related directly to the effect of age on the presence of the gender bias in evaluations, and the other related to the nature of the gender bias revealed in the older male subsample.

The fact that younger participants were less prone to gender bias diverges from research on student samples (e.g., Moss-Racusin *et al.*, 2012; Boring, 2017). One possible explanation for this is the different context in which the evaluations were made. Evaluating university courses is likely to be a task of relatively low personal importance for student evaluators, while evaluating a training course that could have beneficial consequences for one's position in the job market (which is usually relatively low for younger participants) is likely to be of greater personal importance and may therefore encourage deeper information processing, resulting in less biased evaluations in the latter context. Future studies should examine the likelihood of gender bias in the student sample depending on the evaluation context, i.e. compare, within the same group of participants, the evaluations of a teacher's performance after finishing teaching a university course vs. the evaluations of a future course that students anticipate will be of particular importance to their careers or professional development.

In-group bias refers to more favourable evaluation of members of one's own group. However, it can take two forms: favoring one's in-group or derogating out-groups. The gender bias in the older subsample of our study is in line with in-group bias. Both men and women evaluated proposals from the instructor of the same gender more positively than proposals from the instructor of the opposite gender (though the difference was only statistically significant for male participants). The present results for the male subsample showed derogation of the proposal of the instructor of opposite gender rather than favouring the proposal of the instructor with the same gender.

Thus, the question arises as to why succumbing to gender bias in evaluations assess the input of females more negatively. Could it be an attempt to reduce cognitive dissonance created by observing subtle discrimination against women at work? With increasing age, people observe more discrimination and some people probably even engage in discriminatory behaviour in the workplace. This could evoke a sense of cognitive dissonance, and diminishing input of the victims of discrimination might be a way of reducing such dissonance. Other possible explanations are age-related developmental changes: changes in cognitive functioning, personality traits, and, last but not least, changes in social roles accompanying life experiences. Such changes lead to an increase in conservative values and simplified cognitive functioning (see Roberts, Mroczek, 2008; Cornelis, van Hiel, Roets, Kossowska, 2009; Salthouse, 2012; Hess, 2001, Kossowska, Jasko, Bar-Tal, 2012), resulting in more heuristic, stereotyped evaluations. However, this possibility can provide only a partial explanation since more conservative values and the acceptance of more stereotypical views of the social roles of men and women should lead to gender bias in a similar direction for both male and female participants, but this was not the case. Future studies should examine age effects on gender bias more thoroughly.

Third, evaluations of the training course proposal were influenced by the perceived importance of obtaining the certificate offered by the training course. But results did not confirm our third hypothesis, which assumed less gender bias in the evaluation of the proposal depending on the certificate's importance. In fact, independent of the gender of both the instructor and the evaluator, greater perceived importance of the certificate led to more favourable evaluations of the course proposal. This comes as somewhat of a surprise. People attaching little importance to obtaining the certificate should have processed information in a heuristic way and have therefore been more susceptible to gender bias in their evaluations. However, the reason for the present result may lie in the fact that, in general, people declared that it was very important for them to obtain the certificate. Future studies experimentally manipulating the importance of training could examine the relationship between susceptibility to gender bias and the importance of training to the evaluators in greater depth.

The study is not free from limitations related to characteristics of the participants, measure of the proposal evaluation and control of participants' previous work and training experience. The sample was relatively small, had a narrow age range and the evaluations of the proposal were quite general. Also, though all participants had some work experience, their detailed work experience was not measured. Thus future studies overcoming those limitations are necessary to draw firmer conclusions on the susceptibility to gender bias in the context of evaluating training course proposals of real interest to the evaluator.

Still, the results obtained point to an important potential threat that should be addressed by female instructors. In the light of this research, preponderance of relatively older male trainees will enter their courses with lower expectations of the training's quality and presumably lower pre-training motivation solely because of the instructor's gender. Since expectations and motivation are factors of significant impact on training outcomes (e.g. Tannenbaum Cannon-Bowers, Salas, Mathieu, 1993), training effectiveness, in compliance with self-fulfilling prophecy (Merton, 1948), might in fact be lower in this group than in the groups of younger or female trainees. Thus, to prevent potentially

worse training outcomes due to "non-technical" aspects of the training, female instructors should strive to increase trainees' engagement in training groups consisting of relatively older male participants.

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