

Gender Biases Influencing Student Perceptions of Faculty

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Background

- The purpose of the current study was to analyze the influence of a professor's gender on students' perceptions with an unspecified gender control group.

Past Findings

- There was a significant difference between the evaluations of the perceived male and female professors online. Professors believed to be male were rated higher than those believed to be female regardless of actual gender (MacNell et al., 2015).
- Female instructors were more strongly rated on their participation than males, suggesting an unequal treatment based on different expectations regarding an instructor's characteristics (Parks-Stamm & Grey, 2016).
- College students are more likely to prefer professors of the same gender or gender role as themselves, along with male students preferring professors with more gender-stereotypical behaviors. College students with more work experience preferred professors with more perceived masculinity (Das & Das, 2001).
- Upon hearing a lecture on sex discrimination from either a male or female professor, college students gave the female professor more sexist and lower overall ratings. Furthermore, male students with more traditional views rated the female professor more sexist than male students with more liberal views. However, there was no significant interaction between the sex of students and professors (Abel & Meltzer, 2007).

Method

Participants

- Sample size: 57 (6 male, 47 female, 1 non-binary)
 - Three participants failed to report gender, ethnicity, age, and school year
- Age Range: 18-27 ($M_{age} = 20.04$)
- Ethnicity: 74.1% White, 13% Hispanic, 3.7% Asian American, 3.7% Multi-Cultural, 1.9% African American, 1.9% American Indian, and 1.9% Other
- Year in school: 8 first year, 14 sophomores, 17 juniors, 14 seniors, and 1 graduate student

Materials

- Professor Vignettes (three vignettes describing professors with different genders, including male, female, and unspecified)
- Perceptions Questionnaire (measures students' perceptions of professors on four subscales, including achievement, teaching, rapport, and overall impressions)
- Demographics Questionnaire
- Manipulation Check

Design

- Multigroup between-subjects experimental design
- Independent variable: gender of faculty member (female, male, or unspecified)
- Dependent variable: students' perceptions of professors

Procedure

- Participants signed up in advance for a time slot of ten minutes using SONA, a web-based participant pool for students.
- They were given an informed consent to read and sign.
- Participants were randomly assigned a vignette which contained one of the three conditions: male, female, or unspecified gender of the professor.
- They were given the perception questionnaire which included sixteen questions containing an achievement, a teaching, a rapport, and an overall impression subscale as well as the demographic questionnaire containing the manipulation check.
- They were debriefed verbally and asked to ensure the confidentiality of the study by not explaining the nature of the experiment to their classmates.

Results

Manipulation Check

The analysis revealed that 63% of the participants correctly identified the gender that was presented to them in the vignette. Hence, the manipulation was successful despite 37% of the participants failing to name the correct gender.

Hypothesis 1 (achievement; not supported): The male professor will have higher rated achievement than the female and unspecified professors, with the unspecified professor rating higher in achievement than the female professor.

- A one-way ANOVA revealed the difference between groups was not significant, $F(2, 54) = .06, p = .94, \eta^2 = .00$. See Table 1 for means. The professor's gender did not influence students' perceptions of the professor's level of achievement.

Hypothesis 2 (teaching; not supported): The female professor will have higher rated teaching than the male and unspecified professors, with the male professor rating higher in teaching than the unspecified professor.

- A one-way ANOVA revealed the difference between groups was not significant, $F(2, 54) = .48, p = .62, \eta^2 = .02$. See Table 1 for means. The professor's gender did not influence students' perceptions of the professor's teaching ability.

Hypothesis 3 (rapport; not supported): The female professor will have higher rated rapport than the male and unspecified professors, with the unspecified professor rating higher in rapport than the male professor.

- A one-way ANOVA revealed that the difference between groups was not significant, $F(2, 54) = .64, p = .53, \eta^2 = .02$. See Table 1 for means. The professor's gender did not influence students' perceptions of the professor's rapport.

Hypothesis 4 (overall impression; not supported): The male professor will be rated higher overall than the female and unspecified professors, with no difference in overall ratings between the female and unspecified professors.

- A one-way ANOVA revealed that the difference between groups was not significant, $F(2, 54) = .00, p = 1.00, \eta^2 = .00$. See Table 1 for means. The professor's gender did not influence students' overall impression of the professors.

Table 1
Descriptive Statistics

	Achievement	Teaching	Rapport	Overall Impression	N
Male	4.53 (.53)	3.28 (.82)	3.63 (.88)	3.68 (.95)	17
Female	4.57 (.52)	3.35 (.54)	3.73 (.55)	3.67 (.94)	21
Unspecified	4.58 (.31)	3.15 (.64)	3.46 (.80)	3.67 (.73)	19

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Discussion

- The current study analyzed the influence of professor's gender on students' perceptions on the following four dimensions: achievement, teaching, rapport, and overall impression.
- None of the hypotheses were supported, as gender of faculty (male, female, and unspecified) did not influence students' perceptions.

Strengths

- True experiment with random assignment and fairly even number of participants in each condition
 - High internal validity and ability to determine cause and effect relationship
- New vignettes of professors were created that can be used in future research
- Multi-group design allows comparison between different levels of the independent variable
- The procedure of the study is easily replicable if others plan to replicate and compare results in the future

Limitations

- Relied heavily on self-reports that can be affected by biases such as social desirability bias
 - Lacks second measure such as a behavioral measure
- The achievement subscale was not reliable
- The manipulation check discerned that 37% of participants were unaware of the professor's gender in the vignette
- Small sample lacking diversity

Future Directions

- Bigger sample size will be needed (at least 90; 30 participants per group)
- More focus on male participants or a more balanced sample
- Using 2x2 factorial design to investigate both gender and age together
 - Second independent variable might add to research by providing a new perspective
- Using a new measure to increase validity of results
 - Instead of self-report, a behavioral measure could be implemented such as tracking the time needed to complete the task or measuring facial expressions
- Operationalizing the independent variable differently; instead of reading a vignette, participants could watch a video

References

- Abel, M. H., & Meltzer, A. L. (2007). Student ratings of a male and female professors' lecture on sex discrimination in the workforce. *Sex Roles*, 57(3–4), 173–180. <https://doi.org/10.1007/s11199-007-9245-x>
- Das, M., & Das, H. (2001). Business students' perceptions of best university professors: Does gender role matter? *Sex Roles*, 45(9/10), 665–676. <https://doi.org/10.1023/A:1014867809922>
- MacNell, L., Driscoll, A., & Hunt, A. N. (2015). What's in a name: Exposing gender bias in student ratings of teaching. *Innovative Higher Education*, 40(4), 291–303. <https://doi.org/10.1007/s10755-014-9313-4>
- Parks-Stamm, E. J., & Grey, C. (2016). Evaluating engagement online: Penalties for low-participating female instructors in gender-balanced domains. *Social Psychology*, 47(5), 281–287. <https://doi.org/10.1027/1864-9335/a000277>