ORIGINAL ARTICLE

Student Ratings of a Male and Female Professors' Lecture on Sex Discrimination in the Workforce

Millicent H. Abel · Andrea L. Meltzer

Published online: 19 June 2007 © Springer Science + Business Media, LLC 2007

Abstract Using an experimental design, male (n=41) and female (n=46) undergraduate students in the southeastern USA evaluated an identical written lecture by a male and female professor on pay disparities between men and women in the workforce suggesting sex discrimination. Regardless of the students' sex, the male professor and his lecture was rated more positively and less sexist than the female professor. Moderated multiple regression analysis indicated that more traditional and gender stereotypical attitudes toward women in male students were related to greater sexism ratings of the female professor compared to the male professor whereas; no differences on ratings of sexism between the male and female professor were found for male students with more liberal attitudes.

Keywords Student ratings · Sexism · Gender stereotypes

Introduction

The focus of the present study is whether undergraduate students would evaluate a male and female professor differently after reading their identical lecture on a controversial topic related to pay disparities between men and women in the workforce suggesting sex discrimination. Previous research suggest that female professors and their lecture material receive negative teaching evaluations when presenting information on inequalities between men and

M. H. Abel (⊠) · A. L. Meltzer Department of Psychology, Western Carolina University, Cullowhee, NC 28723, USA e-mail: abel@wcu.edu women that include terms such as "sexist" and "male basher" (Baker and Cobb 1997; Davis 1992; Neitz 1985; Rakow 1991). Sex role stereotyping has been offered as a factor influencing negative evaluations of female professors (Baker and Cobb 1997; Bennett 1982; Burns-Glover and Veith 1995) since stereotypic descriptors for men in general have been classified as active and stronger and descriptors for women as passive and weaker (Williams and Best 1990). Therefore, our study also examined whether gender stereotypical and hence, traditional attitudes toward women were related to higher ratings of sexism for female professors associated with the written lecture on sex discrimination and particularly for male students.

The evaluative aspect of gender role stereotyping is manifested in research on the undervaluing of women's work in addition to ratings of less likeability for successful and competent women vs. men (Ferree and McQuillan 1998; Lott 1985). Despite the feminist movement, studies continue to suggest that people discount women's contributions and respond negatively to women performing counter to their gender role expectations (Carli 1990, 2001; Foschi 2000). West and Zimmerman (1987) proposed the concept of "doing gender" in that people are held accountable for performing in a culturally scripted masculine or feminine role (see Kobrynowicz and Biernat 1997; West and Fenstermaker 1993). These gender role stereotypical expectations and evaluations can carry over into the classroom as well particularly for women not conforming to gender expectations and when evaluated by male students (Baker and Cobb 1997; Bennett 1982; Burns-Glover and Veith 1995). As Eagly and Karau (2002) suggest in their theory of role congruity, men may be more susceptible to the use of gender role stereotyping in their attitudes and evaluation of women in professional roles.

Perceptions in the Classroom

Arbuckle and William's (2003) findings suggested that college students may rate male and female faculty according to culturally conditioned gender stereotypes (see also Bennett 1982; Kite 2001), in contrast to Feldman's (1992, 1993) conclusions of minor, insignificant differences between male and female professors in his meta-analyses (see also Miller and Chamberlain 2000). In several related field studies, Basow et al. (1987, 1995, 2000, 2006; see also Centra and Gaubatz 2000) also found significant differences in actual evaluations of male and female professors. Basow and Silberg (1987) found male students rating female professors more negatively than male professors on several measures of teaching effectiveness with female students also rating female professors less favorably than male professors on some of the dimensions as well. In addition, Basow (1995) discovered that male professors were rated higher on "knowledge of subject matter" than female professors regardless of student sex; and male students more often gave female professors lower ratings on an overall measure plus lower ratings on fairness and "thought stimulation." Basow (1995) concluded that female professors' ratings were based more on gender, i.e., "men are professors, women are female professors" (p. 663). In a more current study, Basow et al. (2006) also concluded that male students hold more traditional attitudes toward women (see also Frieze et al. 2003), and engage in more gender stereotypic ratings of professors than female students supporting Eagly and Karau's (2002) role congruity theory. In a similar vein, Bachen et al. (1999) suggested that sex role expectations appear to guide the evaluations of male and female professors for both male and female students similar to that proposed by others (Basow 1995; Basow et al. 2006; Frieze et al. 2003). Finally, Sprague and Massoni (2005) found indications that student's hold gender expectations, especially for female teachers, with more hostility demonstrated towards female professors who did not meet these expectations (see also Bennett 1982).

Sprague and Massoni (2005) and others have offered a "shifting standards" explanation for the different standards used in evaluating male and female professors (see also Basow et al. 2006; Bennett 1982; Burns-Glover and Veith 1995). According to a "shifting standards" model, stereo-types can influence the point of reference in judging members of a stereotyped group such as men versus women (Biernat 2003; Biernat and Manis 1994; Biernat et al. 1991; Biernat and Vescio 2002; Kobrynowicz and Biernat 1997). For example, Burns-Glover and Veith (1995) found that college students attributed similar desirable characteristics to a professor named "Dr. Lawson" as they did to a professor named "Sam," the male professor and yet, different desirable

characteristics for a professor named "Sarah," the female professor. Hence, this study found that students equated desirable characteristics in a college professor with an unspecified sex to the characteristics for the specified "male" professor. Consequently, the standard associated with a college professor may be the standard associated with the "male" professor who is the "norm" against which a "female" professor is evaluated especially since female faculty are often in the minority (Sprague and Massoni 2005). And finally, students may expect different behaviors associated with a standard of effectiveness from a female professor vs. those expected from a male professor (Kierstead et al. 1988; Sprague and Massoni 2005), and if violated can result in negative evaluations especially for female professors (Bachen et al. 1999; Bronstein 1993; Rakow 1991).

In sum, research findings reveal inconsistencies in differences between male and female professor evaluations. Student evaluations may be dependent on the course material provided by the professor. If the course material is highly controversial and sensitive in nature suggesting sex discrimination, students may rate male and female professors differently even when providing the same factual content. This implication arises from observations of student hostility toward female professors when discussing inequalities between men and women (Baker and Cobb 1997; Davis 1992; Neitz 1985).

Purpose of the Study

The purpose of this study was to examine differences in student ratings of a male and female sociology professor after reading his/her mock lecture on sex differences in salary levels of men and women in the workforce. It is a unique contribution to the literature because we experimentally manipulated only the sex of the professor using exactly the same and specific "lecture" information suggesting sex discrimination in the workforce, in contrast to field studies examining actual overall course evaluations of professors. The content of the lecture was intended to test the negative effects of presenting information on inequalities between men and women by female professors as proposed by Baker and Cobb (1997) and others (Davis 1992; Neitz 1985; Rakow 1991) while controlling for any influence of personality characteristics of the professor in the classroom. Moreover, our experimental manipulation of the professor's sex and control over lecture content by using an identical written lecture for both professors provides greater internal validity compared to field studies of actual course evaluations which has much less control over content and personal attributes of the professor in the classroom.

Based on previous studies, we hypothesized that students would provide a lower overall rating to the female professor and her lecture as well as a higher rating on sexism than the male professor. Further, we explored whether specific evaluative statements, i.e., knowledge, likeability, accuracy in depiction of information, etc., were rated differently for male and female professors in addition to the overall rating. We were interested in determining whether specific statements could provide more detailed information about differences in ratings of the professors. Numerous studies have also revealed inconsistent results when also examining the interaction between sex of student and sex of professor (Centra and Gaubatz 2000; Sprague and Massoni 2005). As such, we also explored whether student sex influenced ratings of the male and female professor. If student sex did interact with professor sex, we expected that male students would offer more negative evaluations of female professors than male professors and yet, no differences were expected for female students in their ratings of the two professors.

Several studies have suggested that gender role stereotypical expectations can carry over into the classroom particularly for women when presenting information about gender inequalities, and especially when evaluated by male students (Baker and Cobb 1997; Basow et al. 2006; Bennett 1982; Burns-Glover and Veith 1995). Therefore, we hypothesized that male students with more traditional stereotypical views of women would rate the female professor and her lecture as more sexist than the male professor for male students between the male and female professor for male students holding more liberal views of women.

Method

Participants

We recruited 41 male and 46 female undergraduate students taking psychology courses at a regional comprehensive southeastern university. Most of the participants were first year undergraduates (35.6%) with a mean age of 19.1 years (SD=3.06).

Measures and Stimulus Materials

Demographic Form

The demographic form requested information on the participant's age, sex, and class rank.

Short version of the Attitudes toward Women Scale

Spence et al. (1973) Short Version of the Attitudes toward Women Scale (AWS) consists of 25 items that measure one's degree to which they hold traditional or liberal views about women and their gender stereotypical role expectations of women. The short version of the AWS contains statements about the rights and roles of women in such areas as vocational, educational, and intellectual activities; dating behavior and etiquette; sexual behavior; and marital relationships. The individual items are based on a four-point Likert-type scale ranging from 0 = agree strongly to 3 = disagree strongly. Each item is given a score from 0 to 3, with 0 representing the most traditional and 3 the most liberal profeminist response. Items are summed for a total score with a higher score representing more liberal views and lower scores representing more traditional views. The scores can range from 0-75. Cronbach alpha reliability for the short version of the AWS in this study was .83.

Scenario We adapted and paraphrased information from Brannon (2005, p. 338-339) as a written lecture on differences in workforce salaries between men and women. The written lecture included information on sextyped professions including higher value placed on "male jobs" with consequent higher salaries in male-dominated versus female-dominated occupations, and the continued higher salaries for men versus women in identical maledominated occupations despite their equal levels of job qualifications. We added a final sentence to emphasize a reason for sex discrimination in the workforce, i.e., "This is largely the result of a historical male-dominated society in the United States that still exists today." The written lecture was designed to provide factual information and instill a perception of sex discrimination in the workforce. The lecture was the following:

In the past, the career choices that men and women made resulted in gender segregation in the work force. In other words, a large majority of jobs were held by either men or women. There was not an equal distribution of gender across different careers. As a result, many jobs were considered to be either a 'male job' or a 'female job.' Unfortunately, this stereotype has led to the general American's value of occupations: male professions are valued much higher than female professions. Also, women occupied a less diverse range of occupations than men. Women typically were employed in clerical or professional fields such as nursing or teaching. Females were underrepresented in skilled blue-collar jobs such as construction, mechanics, and plumbing. However, over the past 20 years, the gender segregation in the work force has not decreased. Women have begun to take part in more generally male-dominated jobs, but not many men have taken over generally femaledominated jobs. As a result, this still leaves a high degree of gender segregation. The main reason for this

influx of females into male-dominated jobs is that maledominated jobs offer higher pay than female-dominated jobs. However, current research shows that men and women equally employed in the same male-dominated position, with equal education, skills and credentials have different pay scales. Typically, men still receive higher salaries than women for doing the same things. This is largely the result of a historical male dominated society in the United States that still exists today. (Brannon 2005, p. 338–339)

We designed a rating scale to evaluate the written lecture and the professor. The scale consisted of five questions evaluating the lecture on factuality, accuracy, providing knowledge, sexism, plus an overall rating and five questions evaluating the professor on providing an honest depiction of gender segregation in the workforce, likeability, knowledgeability, sexism, plus an overall rating. The "overall" ratings of the lecture and professor used a seven-point Likert scale ranging from 1 = poor to 7 = excellent. The other items were rated using a seven-point Likert scale ranging from 1 = completely disagree to 7 = completely agree.

Procedure

We tested the participants in small groups (10-15) over the course of 1 month. The participants were recruited from the participant pool in the Department of Psychology who received research credit in their undergraduate introductory psychology courses for their participation and also from other psychology courses. After reading and signing the consent form, participants were randomly assigned to one of two conditions (male professor or female professor written lecture/scenario). Participants in the male professor condition (men=20, women=23) read the lecture presented

Table 1	Descriptive	statistics	on rating	s for the	male and	female professor.

by a male professor; participants in the female professor condition (men=21, women=23) read the same lecture presented by a female professor. In the two conditions, the lecture was exactly the same, only the name of the professor was changed: Dr. Michael Smith (male professor condition) or Dr. Mary Smith (female professor condition). The written lecture was preceded by the following statement: "Please read the following lecture that Dr. Michael Smith/Dr. Mary Smith presented to his/her freshman sociology class about work opportunities in the U.S. for men and women."

After reading the lecture, each participant evaluated the professor and lecture using the ten-item rating scale. Finally, every participant completed Spence et al.'s (1973) short version of the Attitudes toward Women Scale, and the demographic form.

Results

A multivariate analysis of variance (MANOVA) was conducted to test for sex of participant (student) and condition effects (male vs. female professor) on the 5 ratings of the lecture. Significant effects occurred for condition on 3 of the 5 ratings, F(5, 79) = 2.41, p < .05, $\eta^2 = .13$. The lecture by the male professor was rated as a significantly more accurate explanation of sex segregation in the workforce (M=5.44, SD=1.12) than the lecture by the female professor (M=4.91, SD=1.33), F(1, 83) = 4.21, p < .05, $\eta^2 = .05$. The overall rating of the male professor's lecture was significantly higher (M=5.28, SD=.98) than the female professor's lecture (M=4.77, SD=1.10), F(1, 83=5.01, p < .05, $\eta^2 = .06$. Finally, the male professor's lecture was rated as significantly less sexist (M=2.77, SD=1.90) than the female professor's lecture (M=3.77, SD=1.57), F(1, 83) =

Statements	Male Professor ^a	Female Professor ^b
The lecture presented by the professor was factual	5.19 (1.22)	5.14 (1.27)
The lecture was an accurate explanation of gender segregation	5.44 (1.12) ^c	$4.91 (1.33)^{d}$
The lecture provided knowledgeable information	5.40 (1.16)	5.11 (1.10)
The lecture presented was sexist in nature	2.77 (1.90) ^c	$3.77 (1.57)^{d}$
My "overall" evaluation of the lecture presented by the professor	5.28 (.98) ^c	4.77 (1.10) ^d
The professor provided an honest and valid depiction of gender segregation	5.56 (1.03) ^c	$4.89(1.06)^{d}$
I would like to have this professor in a course	4.74 (1.22)	4.27 (1.44)
This professor was knowledgeable about the subject	5.37 (1.20)	5.18 (1.13)
The professor presented the information in a sexist light	2.86 (1.64) ^c	$4.11 (1.62)^d$
My "overall" evaluation of the professor	5.33 (.92) ^c	$4.86(1.11)^{d}$

 $a_{n=43}$

^b *n*=44

^c The "overall" ratings of the lecture and professor were on a seven-point scale ranging from 1 = poor to 7 = excellent. Other ratings were on a seven-point scale ranging from 1 = completely disagree to 7 = completely agree.

^d Standard deviations are in parentheses. Means in the same row with different subscripts differ at p < .05.

7.35, p < .01, $\eta^2 = .08$. No differences were found on ratings of providing factual or knowledgeable information. No significant main effects for or interactions with sex of participant were found. (See Table 1.)

A Multivariate Analysis of Variance (MANOVA) was also conducted to test for sex of participant (student) and condition (male professor or female professor) effects on the five ratings of the professor. Significant effects occurred for condition on three of the five ratings, F(5, 79) = 4.08, $p < .01, \eta^2 = .21$. The male professor was rated significantly higher on providing an honest and valid depiction of sex segregation in the workforce (M=5.56, SD=1.03) than the female professor (M=4.89, SD=1.06), F(1, 83) = 9.08, $p < .01, \eta^2 = .10$. The overall rating of the male professor was significantly higher (M=5.33, SD=.92) than the female professor (M=4.86, SD=1.11), F(1, 83=4.37, p<.05, η^2 =.05. Finally, the male professor was rated as significantly less sexist (M=2.86, SD=1.64) than the female professor $(M=4.11, \text{SD}=1.62), F(1, 83) = 12.75, p < .01, \eta^2 = .13. \text{ No}$ differences were found on ratings of likeability and knowledge. No significant main effects for or interactions with sex of participant were found. (See Table 1.)

Moderating Effects of ATWS on the Relationship between Sex of Participant and Condition on Sexism Rating of Professor and Lecture

A significant difference between male and female participants existed on the ATWS scale, F(1, 84) = 8.66, $p < .01, \eta^2 = .09$. Female participants were significantly more liberal in their attitudes toward women (M=59.04, SD= 7.94) than male participants (M=53.37, SD=9.92). Sex of participant was thus included in testing the moderating

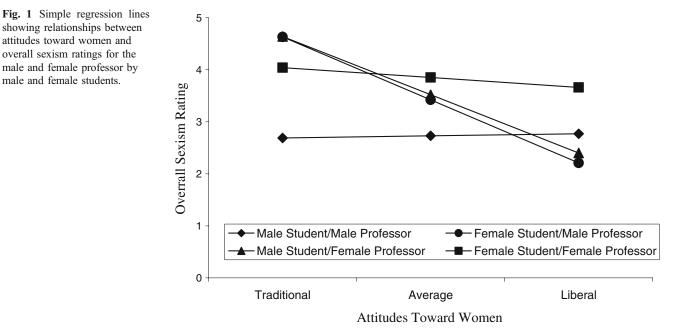
attitudes toward women and

male and female students.

effect of the ATWS on sexism ratings of male and female professors and their lectures. A caveat is required in that both male and female participants scored in the more liberal end of the scale that ranges from 0-75; furthermore, the ATWS scale is an older scale with obvious meaning embedded in the items that could elicit socially desirable responding. This is the reason it was completed after the experimental procedures to avoid bias in responding during the actual experimental procedure. The range of scores in our sample, however, was 32-75 with a mean=56.33, median=56.00, and a SD=9.33 which we deemed adequate for use in the moderated multiple regression analyses. Further, the correlation between sex of participant and the ATWS was small to moderate (r=-.31) indicating that the two variables were not so highly correlated to risk multicollinearity in the multiple regression analysis.

Since the sexist ratings of the professor and lecture were so highly correlated (r=.77), they were combined into an average overall rating on sexism for the regression analysis. Hierarchical multiple regression analysis (Aiken and West 1991) was conducted to examine the moderating effects of ATWS between sex of participant (0=male, 1=female) and condition (0=male professor, 1=female professor) on overall sexism rating of the professor. Scores on the ATWS were centered, i.e., deviation scores were used such that the mean of everyday problems was zero, each main effect and interaction was entered hierarchically into the regression equation, and unstandardized regression coefficients (B) were examined in the regression equations.

A significant three-way interaction between ATWS, sex of participant, and condition accounted for an additional 9% of the variance in sexism rating, F(1, 78) = 10.61, p < .01. The full model accounted for a total $R^2 = .34$, F(7,



78) = 5.67, p<.001. The relationship between ATWS and overall sexism rating was subsequently examined through 4 simple linear regression equations, i.e., men and women rating the male and female professor. The simple linear regression equations revealed a significant negative relationship between ATWS and sexism rating for male students rating the female professor, B=-.12, t(78) = -3.81, p < .001. A significant negative relationship between ATWS and sexism rating also existed for female students rating the male professor, B = -.13, t(78) = -3.35, p < .01. No significant relationships existed for male students rating the male professor, p=.91, or female students rating the female professor, p=.55. Simple regression equations were also computed at 1 SD above (more liberal attitudes toward women) and below the mean (more traditional attitudes toward women) of the ATWS. Male students rated the female professor more sexist than the male professor at the more traditional end of the ATWS, B=1.94, t(78) = 3.56, p < .01, whereas no significant differences in sexism rating between the professors existed at the more liberal end of the continuum, p=.64. In contrast, female students rated the female and male professor similarly at the more traditional end of the ATWS, p=.46, and yet, rated the female professor as significantly more sexist than the male professor at the more liberal end, B=1.45, t(78) = 2.64, p < .05. (See Fig. 1.)

Discussion

The primary purpose of this study was to examine differences in student ratings of a male or female professor when experimentally manipulating a male or female name associated with a written lecture on sex discrimination in the workforce. We hypothesized that students would rate a female professor and her lecture as more sexist, and would provide lower overall ratings of the female professor even when associated with the same lecture as a male professor. Further, we examined whether male students' gender stereotypical expectations of women were related to elevated sexism ratings in female professors vs male professors even when associated with the same lecture.

The results did support the hypothesized differences between the male and female professors in overall and sexist ratings. No significant interaction between sex of student and sex of professor existed; male and female student ratings were similar for both professors. The male professor received a significantly higher overall rating in addition to a higher rating on providing an honest and valid depiction of gender segregation in the workforce, and a lower sexist rating than the female professor regardless of the students' sex. The results suggest that when professors present the same highly sensitive information related to inequality between men and women, a female professor may be perceived as more sexist than a male professor and receive lower overall ratings by both male and female students even when receiving similar ratings as a male professor on likeability and being knowledgeable about the subject. Furthermore, the written lecture itself associated with a female professor was rated more sexist and less accurate in explaining gender segregation in the workforce than the same lecture by a male professor despite the fact that the quality of the lecture was rated similarly on items such as being factual and providing knowledgeable information. It thus appears that students can report few significant differences in the quality of a lecture given by a male or female professor and yet, still consider the controversial lecture material as more sexist and less accurate in explaining sex discrimination if presented by the female professor.

These empirical results confirm previous observations offered by numerous others of "sexism" allegations when teaching about the inequalities between men and women (Baker and Cobb 1997; Davis 1992; Neitz 1985; Rakow 1991). Since the results were similar for both the professor and his/her lecture on overall ratings, statements related to gender segregation, and sexism, the students did not distinguish between the professor and lecture. This is understandable since they were only presented within a written lecture format controlling for the influence of personality differences between a male and female professor existing in an actual classroom.

The significant differences in ratings between male and female professors may be explained by the "shifting standards" model proposed by Sprague and Massoni (2005) and others (Basow et al. 2006). Sprague and Massoni found that students hold gendered expectations especially for female professors and report hostility toward them if they do not meet these expectations (see also Bachen et al. 1999; Baker and Cobb 1997; Basow 1995; Basow et al. 2006; Bennett 1982; Burns-Glover and Veith 1995; Frieze et al. 2003). This contradiction could thus lead to a greater perception of sexism, and lower overall ratings.

Furthermore, as Burns-Glover and Veith (1995) suggested, the standard for a college professor is often associated with the "male" professor that female professors are evaluated against. The "male" professor standard includes perceptions of "knowledge" (Basow 1995; Basow et al. 2006), "professionalism" (Bachen et al. 1999), and "effectiveness" (Kierstead et al. 1988). Female professors thus continuously struggle to succeed in a perceived "gender inappropriate" role that can lead to more negative evaluations (Eagly and Karau 2002). Considering the higher sexism ratings for the female professor, it seems likely that the female professor and her lecture are viewed as being derogatory toward men in general rather than providing an "honest and valid depiction of gender segregation in the workforce" or "providing an accurate explanation of gender segregation." Our analyses on the moderating effects of attitudes toward women support the suggested effects of gendered expectations on ratings of a female professor especially in male students.

Our final analyses examined the moderating effect of more traditional versus more liberal/profeminist attitudes toward women measuring gender role stereotypical expectations, in male and female students and their ratings of sexism for the male and female professor. More liberal attitudes toward women in male students were related to lower ratings of sexism for the female professor. Moreover, male students rated the female professor more sexist than the male professor when holding more traditional gender expectations whereas no differences existed for male students holding more liberal profeminist attitudes thus supporting our hypothesized effects. Our results thus support the influence of culturally conditioned gendered expectations in traditional male students (Bennett 1982; Kite 2001) that may transfer to the classroom leading to more negative evaluations of female professors providing highly sensitive material suggesting sex discrimination. Additional results revealed that more liberal attitudes in female students were related to lower ratings of sexism for the male professor. Furthermore, female students with a more traditional view towards women rated the male and female professor similarly. Surprisingly, female students rated the female professor as significantly more sexist than the male professor when holding more liberal profeminist attitudes. Perhaps the more liberal female students were negatively reacting to what they interpreted as an unexpected endorsement of sex discrimination in the workforce by the female professor which elevated their ratings on sexism and yet, expected this endorsement from a male professor. This possibility could be examined in another study using qualitative measures assessing students' perceptions of the professor and lecture. In short, this study suggests that male students' traditional views of women are related to higher ratings of sexism in the female professor vs. the male professor. In contrast, no differences in sexism ratings between a male and female professor existed for male students with more liberal, profeminist views. Traditional gendered expectations thus appear related to a greater perception of sexism in the female professor than the male professor but only for the male students.

Limitations and Future Research

A limitation of our study was the lack of a conceptual definition for "sexism" in rating the lecture and the professor in addition to using only one item to measure sexism. This could be corrected in a future study by offering a definition of the term or adding additional questions as manipulation checks and open-ended qualitative responses for students to describe the different professors and their perceptions. Sprague and Massoni (2005) found substantial differences between quantitative versus qualitative responses in male and female students when evaluating male and female professors. Finally, we are currently designing an experimental study comparing student ratings for male and female professors presenting more mundane lecture information versus the more emotionally charged lecture as used in this study which could then examine the effects for type of lecture information related to sex of student and sex of professor. Our study suggests that perceptions of sexism may well play a role in more negative ratings of a female professor when presenting information on sex discrimination in the workforce. However, sexist ratings should not be a factor affecting ratings of more mundane lecture information. Previous research as well as this one indicate that women are viewed more negatively than men in an academic setting, however these views may be dependent upon gendered expectations as well as academic area and sensitivity of the information presented.

Finally, the similar effects found for ratings of the professor and his/her lecture are indicative that students could not distinguish between the professor and the lecture which is reasonable. The professor's personality in the classroom could influence ratings of the professor in lieu of his/her lecture content. We purposely controlled for the personality of the professor in the actual classroom by using a written lecture and focusing on content. While this may appear to be a limitation, our study was expressly designed to test effects of lecture content while controlling for the potential effects of a professor's personality characteristics. Future research may also want to examine how personality could moderate the effects of lecture content on professor ratings. It is important to further our understanding of how students evaluate male and female professors, how these student perceptions may ultimately affect classroom interactions, and examine whether these views are changing as more female professors enter academia.

References

- Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage.
- Arbuckle, J., & Williams, B. D. (2003). Students' perceptions of expressiveness: Age and gender effects on teacher evaluations. *Sex Roles*, 49, 507–516.
- Bachen, C. M., McLoughlin, M. M., & Garcia, S. S. (1999). Assessing the role of gender in college students' evaluations of faculty. *Communication Education*, 48, 193–210.
- Baker, P, & Cobb, M. (1997). Gender matters most: The interaction of gendered expectations, feminist course content, and pregnancy in student course evaluations. *Teaching Sociology*, 25, 29–43.
- Basow, S. (1995). Student evaluations of college professors: When gender matters. *Journal of Educational Psychology*, 87, 656–665.

Basow, S. (2000). Best and worst professors: Gender patterns in students' choices. Sex Roles, 43, 407–417.

- Basow, S., Phelen, J. E., & Capotosto, L. (2006). Gender patterns in college students' choices of their best and worst professors. *Psychology of Women Quarterly*, 30, 25–35.
- Basow, S., & Silberg, N. (1987). Student evaluations of college professors: Are female and male professors rated differently? *Journal of Educational Psychology*, 79, 308–314.
- Bennett, S. K. (1982). Student perceptions of and expectations for male and female instructors: Evidence relating to the question of gender bias in teaching evaluations. *Journal of Educational Psychology*, 79, 170–179.
- Biernat, M. (2003). Toward a broader view of social stereotyping. *American Psychologist*, 58, 1019–1027.
- Biernat, M., & Manis, M. (1994). Shifting standards and stereotypebased judgments. *Journal of Personality and Social Psychology*, 66, 5–20.
- Biernat, M., Manis, M., & Nelson, T. E. (1991). Stereotypes and standards of judgment. *Journal of Personality and Social Psychology*, 60, 485–499.
- Biernat, M., & Vescio, T. K. (2002). She swings, she hits, she's great, she's benched: Implications of gender-based shifting standards for judgment and behavior. *Personality and Social Psychology Bulletin*, 28, 66–77.
- Brannon, L. (2005). *Gender: Psychological perspectives*. Boston: Pearson Education.
- Bronstein, P. (1993). Challenges, rewards, and costs for feminist and ethnic minority scholars. New Directions for Teaching and Learning, 53, 61–70.
- Burns-Glover, A., & Veith, D. (1995). Revisiting gender and teaching evaluations: Sex still makes a difference. Journal of Social Behavior and Personality, 10, 69–80.
- Carli, L. L. (1990). Gender, language, and influence. Journal of Personality and Social Psychology, 59, 941–951.
- Carli, L. L. (2001). Gender and social influence. Journal of Social Issues, 57, 725-741.
- Centra, J. A., & Gaubatz, N. B. (2000). Is there gender bias in student evaluations of teaching? *Journal of Higher Education*, 71, 17– 33.
- Davis, N. (1992). Teaching about inequality: Student resistance, paralysis, and rage. *Teaching Sociology*, 20, 232–238.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Bulletin*, 108, 233–256.

- Feldman, K. A. (1992). College students' views of male and female college teachers: Part I—evidence from the social laboratory and experiments. *Research in Higher Education, 33*, 317–375.
- Feldman, K. A. (1993). College students' views of male and female college teachers: Part I—evidence from students' evaluations of their classroom teachers. *Research in Higher Education*, 34, 151–211.
- Ferree, M. M., & McQuillan, J. (1998). Methodological and policy issues in university salary studies. *Gender and Society*, 12, 7–39.
- Foschi, M. (2000). Double standards for competence: Theory and research. *Annual Review of Sociology*, 26, 21–42.
- Frieze, I. H., Ferligoj, A., Kogovsek, T., Rener, T., Horvat, J., & Sarlija, N. (2003). Gender-role attitudes in university students in the United States, Slovenia, and Croatia. *Psychology of Women Quarterly*, 27, 256–261.
- Kierstead, D., D'Agostino, P., & Dill, H. (1988). Sex role stereotyping of college professors: Bias in students' ratings of instructors. *Journal of Educational Psychology*, 80, 342–344.
- Kite, M. E. (2001). Changing times, changing gender roles: Who do we want women and men to be? In R. K. Unger (Ed.), *Handbook of the* psychology of women and gender (pp. 215-227). New York: Wiley.
- Kobrynowicz, D., & Biernat, M. (1997). Decoding subjective evaluations: How stereotypes provide shifting standards. *Journal* of Experimental Social Psychology, 33, 579–601.
- Lott, B. (1985). The devaluation of women's competence. Journal of Social Issues, 41, 43–60.
- Miller, J., & Chamberlain, M. (2000). Women are teachers, men are professors: A study of student perceptions. *Teaching Sociology*, 281, 283–298.
- Neitz, M. J. (1985). Resistance to feminist analysis. *Teaching Sociology*, 12, 339–353.
- Rakow, L. (1991). Gender and race in the classroom: Teaching way out of line. *Feminist Teacher*, *6*, 10–13.
- Spence, J. T., Helmreich, R., & Stapp, J. (1973). A short version of the Attitudes toward Women Scale (AWS). *Bulletin of the Psychonomic Society*, 2, 219–220.
- Sprague, J., & Massoni, K. (2005). Student evaluations and gender expectations: What we can't count can hurt us. *Sex Roles*, 53, 779–793.
- West, C., & Fenstermaker, S. (1993). Doing difference. Gender and Society, 9, 8–37.
- West, C., & Zimmerman, D. (1987). Doing gender. Gender and Society, 1, 125–151.
- Williams, J. E., & Best, D. L. (1990). Measuring sex stereotypes: A multination study. Newbury Park, CA: Sage.