

WHAT'S IN A NAME? THE STATUS IMPLICATIONS OF STUDENTS' TERMS OF ADDRESS FOR MALE AND FEMALE PROFESSORS

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College students participated in two studies assessing differences in terms of address for male and female professors (i.e., first name vs. title) and the implications of the terms selected. In Study 1, 243 students reported their terms of address for professors of their present classes. As predicted, the probability of being addressed by title was significantly greater for male professors than female professors. In Study 2, 120 students read and answered questions about a transcript of a class session ostensibly taught by a male or female professor whom students addressed by first name or title. Professors were perceived to hold higher status when addressed by title, regardless of their gender. Female, but not male, professors addressed by title were perceived to be less accessible. These findings suggest that female professors hold lower status than male professors and must often choose between perceptions of status versus accessibility.

Do men hold higher status than women in academia? Certainly, this seemed to be the case in the late 19th and early 20th centuries. A number of female pioneers in the field of psychology, for example, Mary Whiton Calkins, the first female president of the American Psychological Association (APA), completed all of the qualifications for the doctor of philosophy degree but were denied the degree based on their gender (Hergenhahn, 1997).¹ Even when granted doctoral degrees, women often were not placed in university positions at the level of their male peers. A rule at one university prohibiting spouses from both being faculty members resulted in noted psychologist Dr. Eleanor J. Gibson being dubbed a “research associate,” whereas her husband was awarded the status of “professor” (Benjafield, 1996). Attitudes toward women in academia at this time could often be characterized as ambivalent. Women were associated with positive nurturing characteristics but were perceived to be unsuited for higher education. APA founder G. Stanley Hall supervised several female graduate students but nonetheless remarked that “the glorified Madonna ideal shows us how much more whole and holy it is to be a woman than to be an artist, orator, professor, or expert” (Hall, 1904, p. 646, as cited in Diehl, 1986).

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As a result of biased attitudes toward women in academia during the early 20th century, many female professors found their career opportunities constrained (Diehl, 1986). But as we enter the new millennium, does a gender-based status differential still permeate our institutions of higher learning? Are female professors still sometimes judged according to Hall’s “Madonna ideal” of nurturance rather than by their professional accomplishments? To what extent do contemporary female professors continue to face prejudice from their colleagues, administrative officials, and, perhaps, students?

The Status of Female Professors in the 1990s

In 1999, the Massachusetts Institute of Technology (MIT) Committee on Women Faculty reported the results of its five-year study on gender bias at MIT (Miller & Wilson, 1999; “A Study on the Status of Women Faculty in Science at MIT,” 1999). The study revealed evidence of discrimination against female faculty members in a number of areas including hiring, salaries, and resources. The findings pointed to “hidden discrimination” involving subtle discrepancies in the treatment of men and women based ostensibly on gender stereotypes such as the perception that a woman with children would be unable to devote sufficient time to fulfill the duties of certain jobs. The Committee contended that MIT is unique in its administration’s progressive response to evidence of internal gender bias but not in its pattern of gender discrimination. But is it the case, perhaps, that gender bias is more pronounced in institutions such as MIT that specialize in the traditionally male-dominated fields of math and science

(Steele, 1997)? In the present studies, we examined whether, in the late 1990s, female professors held lower status than male professors at a small liberal arts college with a focus on the arts. Whereas the MIT study examined the responses of *university officials* to female faculty members, the present studies examined the responses of *students* to female faculty members. These complementary approaches both address the issue of female professors' status in the academic workplace.

We hypothesized that college students would be more likely to address faculty members by title when the faculty members were male and by first name when the faculty members were female. We believed that such differences in terms of address for male and female professors would reflect differences in status accorded to the professors and that, in fact, these terms of address might assist in perpetuating this status differential in academia. Furthermore, we believed that, due to the lingering "Madonna ideal" of female nurturance, a higher-status term of address for female professors would be perceived as a gender norm violation and that this perceived norm violation would result in lower ratings of female professors' accessibility (Eagly & Karau, 1999). However, we did not expect a higher-status term of address to be perceived as a violation of gender norms for male professors (Burn, 1997).

What's in a Name? Research on the Evaluative Implications of Terms of Address

Prior research indicates that how we address an individual often reflects the nature of our relationship with that individual (Murphy, 1988). Slobin, Miller, and Porter (1968) found that addressing an individual by title rather than first name implied that the addressee held higher status. In addition to reflecting status relationships, particular terms of address might also reflect the degree of affection held for the addressee. The evaluative implications of titles have been examined in research in a variety of settings.

Terms of address in a climate of changing gender norms. The 1960s feminist movement inspired the creation of the term of address "Ms." Crawford, Bell, and Mizney (1980) found that, in the late 1970s, the title "Ms." was perceived to be more powerful but less favorable than the titles "Mr.," "Miss," and "Mrs." Dion and Schuller (1990) reported that, in the late 1980s, women in managerial positions who went by the title "Ms." were evaluated higher on attributes such as competence, leadership ability, and overall masculinity but lower on warmth and likability, compared with female managers addressed as "Miss" or "Mrs." By the late 1990s, the title "Ms." was considered normative and no longer carried strong negative connotations (Crawford, Stark, & Renner, 1998). The case of "Ms." provides an ideal example of social influences on chosen terms of address and the reciprocal effects of the chosen terms of address on society.

Terms of address in business settings. Slobin et al. (1968) examined the different terms of address used in a business environment where status levels were easily identified. They found that first names were employed most often in exchanges between employees of equal status and when superiors addressed subordinates. In contrast, subordinates most often addressed superiors by title. According to the authors, these findings indicated that "the address term exchanged between equals and intimates is the same one directed toward inferiors" (p. 289). Whereas being addressed by first name may connote intimacy in personal relationships, Slobin et al.'s research suggests that it is a sign of lower status in professional settings.

Terms of address in academic settings. Like business organizations, universities have a hierarchical status structure. We might then expect variations in terms of address to reflect individuals' position within this status structure in a manner consistent with that identified by Slobin et al. (1968). Status differences clearly exist within college faculties, with some instructors having reached the higher status ranks of tenured full or associate professors, while others hold the lower status positions of assistant professors or graduate student instructors. It is possible that faculty members' relative status within the college might influence how students address them. However, at many colleges, students may address certain professors by title and others by first name even when the professors hold the same degree and are at the same official rank within the college. We propose that this variability in students' terms of address for professors might reflect the students' perceptions of the professors' relative status or accessibility.

A few prior studies have examined terms of address and terms of personal reference (i.e., the term used to refer to an individual during a conversation with a third party) in university settings (Murphy, 1988; Rubin, 1981). Murphy (1988) asked college students how they would refer to a professor named "Jim Smith" if they were discussing the professor with another person. When the professor had not specifically asked to be addressed by first name, the term of reference chosen most often by students was overwhelmingly "Professor Smith" (Experiments 1, 2, & 5). Murphy argued that the choice of terms used in personal references is a "socially driven phenomenon" prompted by a number of factors in the social situation (e.g., the nature of interpersonal relationships and the desire to be perceived positively by others).

If chosen terms of address, like terms of personal reference, are socially driven, how might gender play a role in this paradigm? Whereas Murphy (1988) employed male but not female professors as stimuli in his study of personal references, Rubin (1981) investigated students' terms of address for both male and female professors at their college. Rubin found that female professors, and in particular younger female professors (ages 26–33), were addressed by their first names more often than male colleagues of the

same age. Female students were more likely than male students to address female professors by first name in both public and private contexts (e.g., the classroom vs. the professor's office). Male students were more likely to use informal terms of address with female professors in private contexts only.

The Present Research

Studying terms of address for male and female professors provides one avenue through which to explore subtle gender biases in academic environments. In two studies, we investigated our primary hypotheses: (a) male professors will be more likely than female professors to be addressed by professional title versus first name, (b) a professional title address will be associated with higher status accorded to the addressee, and (c) female but not male professors addressed by title will be perceived to be less accessible than their same-gender counterparts addressed by first name. In Study 1, we tested our prediction that the differential terms of address for male and female professors reported by Rubin in 1981 would still be present in the late 1990s. In Study 2, we addressed an issue that Rubin did not examine empirically: the implications of differential terms of address for students' perceptions of male and female professors' status and accessibility.

STUDY 1

Students' terms of address for male and female professors were examined at a small liberal arts college where terms of address for faculty members vary despite the fairly uniform educational background of instructors: No classes are taught by graduate students, and over 92% of professors hold Ph.D.s or other terminal degrees (in our experience, the likelihood that students will address professors by first name is often greater in small colleges, such as the one where the study was conducted, than in larger universities, where more formal terms of address for professors may prevail). We hypothesized that the perceived lower status of female professors observed at MIT (1999) would also be found at the liberal arts college, as evidenced by male professors being more likely than female professors to be addressed by professional title and female professors being more likely than male professors to be addressed by first name.

Based on the findings of Rubin (1981), we believed that the gender of the students and the age of the professors might also influence the terms of address for male and female professors. Specifically, we expected female students to be more likely than male students to address female professors informally, due in part to these students' perceived solidarity with their female professors. In addition, we speculated that both male and female students would address older professors more formally than younger professors, regardless of the professors' gender.

Method

Participants. Participants in the first study were 243 undergraduate students (155 females, 85 males, and 3 gender unspecified) enrolled at a small, private liberal arts college in the northeastern United States (a sample constituting 23% of the total student population at the college). The sample comprised 176 White students, 31 students of other ethnic backgrounds, and 36 students who did not indicate their ethnicity.

Sample information. Professors at the college were classified into one of four groups according to age (younger or older than 40 years of age) and gender (male or female). The age cut-off for assigning professors to the younger or older groups was originally designated to be "33," in order to be consistent with Rubin (1981), but was increased to "40" due to an insufficient number of younger, female professors. The college records office classified professors into the "over 40" and "under 40" categories but would not release information concerning each professor's exact age due to privacy concerns. Eight professors within each of the four groups were selected randomly and were asked to participate in the study. All selected professors agreed to participate in the study, with the exception of one younger female professor (resulting in only seven professors in the younger female professor group).

Questionnaires were distributed to students in each of the professors' lowest level class offered that semester, excluding first-year seminars, which are atypical courses at the college. The lowest level class for each randomly selected professor was specified because we wanted to keep all classes at the same level, if possible, to rule out variations in class level as an alternative explanation for differences observed across the sampled classes. In addition, our informal observations suggested greater variability in terms of address for professors' lower level classes at this particular college, given that higher level classes are often smaller and are often not the first course that students have taken with a particular professor, both of which may lead to increased likelihood that the professor will be addressed by first name in higher level classes. Courses at the college where the study was conducted are divided into "lower college" (100- and 200-level) courses and "upper college" (300- and 400-level) courses. All of the younger male and female professors' sampled classes were lower college courses, and all but one each of the older male and female professors' sampled classes were lower college courses. Student response rate was high, with all students in the sampled classes agreeing to participate in the study, unless they had already participated in another class or had heard about the study from other students who had participated in it. The number of students in attendance on the day their class was surveyed ranged from 2 to 14 (sample sizes reflecting the relatively small classes at this college).

Overview. College students answered various questions about the professors of their present classes, including a question concerning the term of address that the student would use to address each professor. The relationship of gender of professor, age of professor, and gender of student to professors' likelihood of being addressed by first name or title was examined.

Procedure and materials. Two female experimenters obtained permission from 31 randomly selected professors (eight older females, eight older males, seven younger females, and eight younger males) to distribute questionnaires to students in their lowest-level class during the last 10 minutes of a class session. Working independently but with the same scripts, experimenters introduced a questionnaire labeled "Student-Teacher Interaction: A Student Analysis." Instructions were given orally and reiterated on the questionnaires. Experimenters stressed the confidentiality of responses. Students were asked to complete the questionnaire as honestly and accurately as possible but were also informed that they were under no obligation to participate in the study and that, if they chose not to participate, they could spend the 10 minutes working on class assignments. At the end of the class session, participants were debriefed and dismissed.

On the questionnaire, participants were asked to list the classes that they were taking in the present semester (usually four classes per student) and to answer questions concerning the professors of each of these classes. In addition to providing demographic information (e.g., their age, gender, and intended major) and responding to filler questions, students answered the following target question for each of their professors: "What do you (or would you be most likely to) call this teacher (i.e., term of address)?" On the questionnaire and in oral instructions, professors were referred to as "teachers" in order to avoid priming a specific term of address.

There were less than .03% of cases in which a student answered "yes" to the question "Did the teacher ask you to refer to him or her in a particular way (if so how)?" Over 95% of students at this college reported addressing professors either by first name or by "Professor" followed by the professor's last name (e.g., Professor Kaplansky). Data for the 4.1% of cases in which students indicated a term of address other than first name or "Professor" (e.g., "Mr.," "Ms.," or "Dr.") were not included in the primary analyses due to an insufficient number of cases for each of these address categories.

Results and Discussion

Statistical analyses were performed on two datasets: The "large dataset" comprised students' information for all of their professors and the "small dataset" consisted only of information about the instructors in whose classes the

questionnaires were distributed. The small dataset had the benefits of incorporating only perceptions of professors in their lowest-level class that semester and including an equivalent number of randomly selected professors from each of the four categories: eight older females, eight older males, seven younger females, and eight younger males. The large dataset lacked the controlled selection of the small dataset but provided three times the number of observations, given that each student rated multiple professors (the student sample size remained the same in both datasets). The strongest support for our hypotheses would be provided by parallel findings in the two datasets.

Small dataset. We first analyzed the small dataset, which included information for only the instructors in whose classes experimenters distributed the questionnaire. The number of students providing information for each of the 31 professors ranged from 2 to 14. A total of 243 observations (students' ratings of professors) was analyzed. Were male professors more likely than female professors to be addressed by their professional title? The proportions of male and female professors addressed by title versus first name were compared in a chi-square analysis. As predicted, the likelihood of being addressed by title was much greater for male professors (title used in 58 out of 116 observations: 50%) than for female professors (37/127: 29%), $\chi^2(1, N = 243) = 11.09, p < .0009$ (significance levels for all chi-square values are for two-tailed tests).

We next examined whether term of address usage was affected by factors other than the professors' gender, such as the professors' age or the students' gender. Because the chi-square test is not well suited for the analysis of more than two categorical variables, we addressed this issue by employing a logistic regression analysis (Jaccard & Becker, 1997). Logistic regression allows an estimation of the partial effect of each explanatory variable on the probability that a professor is addressed by title. Logit analysis is a special case of the standard linear regression procedure, which has been adapted for applications where the dependent variable is dichotomous. Unlike linear regression, the inherently nonlinear logit model corrects for the heteroscedasticity of the regression disturbance stemming from the dependent variable taking on only two values. It also assures that the predicted probabilities fall within the 0–1 interval.

Term of address was entered as the dependent variable in the logit analysis, and gender of professor, age of professor, and student gender were independent variables. With an alpha level set to .05, the logit analysis produced three significant effects: a main effect of gender of professor replicating the effect produced by the chi-square analysis ($p < .0001$), an unexpected main effect of age of professor indicating greater title use for younger professors ($p < .02$), and an Age of Professor \times Gender of

Professor interaction ($p < .00001$). Values for these effects on the Wald-Wolfowitz runs test of significance were, respectively, 15.04, 5.44, and 23.60 ($df = 1$ for all). The Wald-Wolfowitz runs test is a nonparametric test of the hypothesis that two samples originate from the same population (SPSS for Windows, Rel. 8.0.1, 1998). To follow up on the significant interaction of age and gender of professor in the logit analysis, additional chi-squares were conducted analyzing data for younger and older professors separately. A professional title term of address was found to be equally likely for younger female professors (32/70: 46%) and younger male professors (28/70: 40%), $\chi^2(1, N = 140) = .46, p = .49$. However, whereas older male professors were more likely to be addressed by title (30/46: 65%) than by first name, older female professors were more than 10 times more likely to be addressed by first name rather than title (title used in only 5 of 57 observations: 9%), $\chi^2(1, N = 103) = 36.15, p < .00001$. Students' strong tendency to address older female professors by first name probably played a key role in the unexpected finding that older professors were *less* likely than younger professors to be addressed by title.

Contrary to Rubin's (1981) findings, no significant effects of student gender were found in the logit analysis of the present data. Additional chi-square analyses conducted for each student gender group separately revealed that male students were 25% more likely to adopt a professional title term of address for male professors than for female professors, $\chi^2(1, N = 84) = 4.73, p < .03$, and female students were 22% more likely to use a professional title term of address for male professors than for female professors, $\chi^2(1, N = 154) = 7.09, p < .008$.

One explanation for students' greater tendency to use professional title to address male professors might be that male professors are more likely to teach larger classes (although some prior research suggests that, in general, female professors are in fact more likely to teach larger, lower-level classes) and that addressing professors by title is more likely in larger classes. To address this possibility, we first conducted a chi-square analysis comparing terms of address used in classes reported to be small (1–10 students), medium (11–20 students), and large (more than 20 students). As expected, professors were addressed by title a greater proportion of the time in large classes (55%) than in medium-sized (33%) or small classes (34%), $\chi^2(2, N = 238) = 7.85, p < .02$. Consequently, if male professors were more likely to teach large classes, their greater likelihood of being addressed by title might be explained as merely a result of class size. However, a nonsignificant chi-square analysis indicated that the ratio of male professors to female professors was equivalent for small, medium-sized, and large classes. We conducted one additional logit analysis that included a "number of ratings" variable representing the total number of student ratings for each professor, along with the other target variables. The nonsignificant findings for the number of ratings variable confirmed

that the primary results were not due to a few professors receiving atypical responses from a large number of students.

Large dataset. The large dataset included data for 250 classes with observations per class ranging from 1 to 20. These classes were taught by 144 professors with observations per professor ranging from 1 to 24. A total of 858 observations (each student's rating of each individual professor) was examined. Because of the nonindependence of observations in the large dataset (each student rated multiple professors), chi-square tests were not appropriate. Therefore, we turned to the logit model exclusively for analysis of the large dataset, using the same design employed for the small dataset. Was the greater likelihood of male professors being addressed by title mirrored in this more diverse dataset? The logit analysis produced two significant effects: a main effect of gender of professor ($p < .0001$) and an interaction of age and gender of professor ($p < .02$). Wald-Wolfowitz significance values for these effects were, respectively, 14.69 and 6.13 ($df = 1$ for both). As with the small dataset, title use was significantly more likely for male professors (240/524: 46%) than for female professors (100/334: 30%). Also replicating findings for the small dataset, there was little difference in the use of title for younger male professors (65/151: 43%) and younger female professors (58/156: 37%), whereas being addressed by title was much more likely for older male professors (174/369: 47%) than for older female professors (41/176: 23%). No significant effects were found for student gender. Additional logit analyses once again ruled out class size and number of student ratings as potential confounds.

Summary. The results of Study 1 supported our hypothesis that male professors would be more likely than female professors to be addressed by professional title. The finding that less than .03% of students reported that a professor had asked for a specific term of address ruled out the possibility that students were simply conforming to female professors' expressed preference to be addressed by first name. Additional alternative explanations for the findings (e.g., effects of student gender and class size) were also ruled out. In a second study, we tested our hypothesis that female professors' lower probability of being addressed by title was associated with perceptions of their lower status.

STUDY 2

The findings of Study 1 clearly indicated that male professors were more likely than female professors to be addressed by professional title. These findings replicated those of Rubin (1981), who attributed gender differences in terms of address to differences in status afforded to male and female professors but did not test this attribution empirically. Our second study examined the implications of students' chosen terms of address for perceptions of

male and female professors. We addressed whether term of address was, as we hypothesized, an operationalization of status such that professors addressed by title were perceived to hold higher status. We also examined whether addressing a professor by first name (a less formal term of address) was associated with the professor being perceived as more accessible.

In Study 2, 120 students read what they believed was a transcript of a class session taught by a male or female professor whom students addressed by first name or title. Student participants were randomly assigned to read one of four fictional transcripts that differed only in the gender of the professor and in students' term of address for the professor (first name or title). After reading the transcript, the participants reported their perceptions of various aspects of the class and instructor, including perceptions of the instructor's status and accessibility.

We hypothesized that professors addressed by title would be perceived to hold higher status than those addressed by first name. We also predicted that male professors would be perceived to hold higher status than female professors. Male professors addressed by title might be perceived to hold particularly high status given Ridgeway's (1993) proposal that the effects of status characteristics (e.g., gender, professional title) are additive. Finally, we predicted that female professors addressed by title would be rated as less accessible than female professors addressed by first name, as this formality would be seen as a violation of the injunctive norms of female warmth and nurturance (Eagly & Karau, 1999). We did not expect male professors addressed by title to be similarly penalized in students' accessibility ratings, as nurturance is not an injunctive norm for men. We speculated that term of address might not significantly affect male professors' accessibility ratings or that male professors addressed by first name rather than title might be perceived to be violating the "high status" gender norm for men, a gender role violation that might be reflected in lower ratings of their accessibility (Burn, 1996).

Method

Participants. Participants were 120 undergraduate students (71 females, 46 males, and 3 gender-unspecified) attending the same liberal arts college as participants in Study 1. These students were volunteers who approached the experimenters in the college library at a booth advertising "free candy" for participation in a brief questionnaire study.

Procedure and materials. Two female experimenters distributed experimental materials to participants. Both oral and written instructions were provided. The cover story for the experiment was that the faculty wanted to assess whether a History of Psychology course that might be taught at the college in coming semesters would cap-

ture students' interest. Participants were told that they would read an actual transcript of the first class session of a History of Psychology course taught at another college similar to the student participants' college and would then answer questions about what they had read. They were given as much time as needed to complete the task and were asked to answer the questions as honestly and accurately as possible.

Participants were randomly assigned to read one of four fictional transcripts that varied only in the gender of the professor (Professor Sharon Parks or Professor Richard Parks) and students' term of address for the professor (first name or Professor Parks). Gender of professor and term of address were both between subjects' factors. The transcript included a professor's introduction on the first day of a History of Psychology class and his or her responses to questions from four students, two of whom (one male and one female) addressed the professor by either title or first name. The gender of the student who asked the first question was counterbalanced (a factor that proved to have no significant impact on the findings). The professor's title followed by his or her first and last name was included in the title of the transcript and in the professor's oral introduction. Names of professors and students were drawn from a list of names found to be equivalent in their associations with various characteristics such as age (Kasof, 1993). To add believability to the fictional transcripts, participants were informed that the names of students in the transcripts had been changed to protect their anonymity, in accordance with APA guidelines. The transcripts were modeled after male and female professors' actual introductions for this course. Below are excerpts from the transcript featuring a male professor addressed by first name:

Classroom Introduction
Professor Richard Parks
History of Psychology Lecture 1

Teacher: Welcome to the History of Psychology. I'm Professor Richard Parks. Before I go over the syllabus, I would like to get some information about you. I am passing out index cards. Please write your name, social security number, email address, class level, and major on the cards.

. . . I am sure that you have heard various reports about this class from other students who have taken it. I would like to tell you what you should really expect. This is a demanding class. You will be expected to attend and actively participate in each class. There will be readings both on reserve and from the core text. You will be required to bring these readings with you to class when they are scheduled for discussion. There will be a midterm and final exam as well as a research paper that you will present to the class.

. . . This class will be challenging but I am confident that you will find it to be a rewarding

- and worthwhile experience. If you have any questions, I would be happy to take them now.
- Mary (student): Richard, how long is the oral presentation required to be?
- Teacher: Ten to 15 minutes.
- Thomas (student): How many sources should we use for our research papers?
- Teacher: You should have at least three primary sources that we have not discussed in class, although I expect you will need more to adequately cover your topics.
- Alan (student): Richard, how is the topic for the research paper chosen?
- Teacher: You decide the topic; however, I need to approve it before midterms.
- Kathryn (student): Will the final be cumulative?
- Teacher: Yes, and we will talk more about the format of the exams as they approach.

After participants read the transcript, they completed a questionnaire on which they used a five-point scale to rate their agreement with 21 statements about the professor and the class session (with higher numbers indicating stronger agreement). In addition to various filler statements (e.g., This would be a popular class; I would do all of the course readings.), the questionnaire included a statement assessing perceptions of the professor's accessibility (The teacher is accessible.) and six statements assessing perceptions of the professor's status (e.g., This teacher probably has tenure [has been promoted to full or associate professor]; This teacher's income probably ranks in the top 10% of professors at the college; This teacher probably has high status in the college.). Participants also completed six short answer questions designed as manipulation checks to assess their memory of the transcript (e.g., What was the teacher's name? Will there be a cumulative exam?). All participants provided satisfactory responses on the manipulation checks. After they had completed the questionnaire, participants were debriefed and dismissed.

Results and Discussion

Perceptions of professors' status. In an initial 2 (Gender of Professor) \times 2 (Term of Address for Professor) \times 2 (Student Gender) analysis between subjects experimental design, a main effect of student gender was found such that female students perceived professors to be higher status than did male students, regardless of the professors' gender or term of address: $F(6, 93) = 3.32, p < .005$. Because the student gender factor was not found to significantly interact with any other factors, it was eliminated in the primary analyses.

The means of the six status assessment items were averaged to form one status variable after a reliability analysis of these items yielded a Cronbach alpha of .87. A 2 (Gender of Professor) \times 2 (Term of Address for Professor) analysis of variance produced only the predicted signifi-

cant main effect of professor's term of address such that higher status ratings were given to professors addressed by title ($M = 3.60$) than to those addressed by first name ($M = 3.30$): $F(1, 104) = 5.50, p < .03$. Trends for students to rate professors addressed by title as higher status than those addressed by first name was found for each of the individual status items. A multivariate analysis of the status items revealed that these trends reached significance on the individual items assessing whether the professor was influential in the college, $F(1, 104) = 7.20, p < .001$, and had high status in the college, $F(1, 104) = 10.57, p < .001$ (see Table 1). In this multivariate analysis, the effect of term of address on the aggregate of the six status items paralleled the significant effect found for the averaged status variable, $F(6, 99) = 2.24, p < .05$. No main effects or interactions of gender of professor were found in these analyses.

These findings indicated that students' term of address for professors is indeed an operationalization of the professor's status. In fact, term of address seemed to override any effects of the professors' and students' gender on perceptions of the professors' status. We next looked at factors influencing perceptions of the accessibility of male and female professors.

Perceptions of professors' accessibility. No effects of participant gender were found in the accessibility analyses; therefore, this factor was once again excluded from the experimental design. There were no significant main effects of gender of professor or term of address for professor on perceptions of professors' accessibility. However, the predicted Gender of Professor \times Term of Address for Professor interaction was found, $F(1, 116) = 4.09, p < .05$ (see Table 1). Follow-up analyses confirmed that professors with a term of address inconsistent with their gender role (i.e., female professors addressed by title and male professors addressed by first name) were given lower accessibility ratings than professors with a term of address consistent with their gender role (i.e., female professors addressed by first name and male professors addressed by title), $F(1, 118) = 4.15, p < .05$.

GENERAL DISCUSSION

A number of researchers has proposed that familiar terms of address tend to be used more often for members of lower status groups than for members of higher status groups and that, consequently, women are more likely than men to receive more familiar terms of address (Key, 1975; Kramer, 1975; Rubin, 1981). The present research on women in academia concurs that female professors are more likely than their male colleagues to be addressed by first name (Study 1) and that this less formal term of address is associated with perceptions of lower status (Study 2).² Both male and female students displayed this greater tendency to address male professors by

Table 1
Mean Agreement with Accessibility and Status Assessment Items: Study 2

	<i>Male Professors</i>		<i>Female Professors</i>	
	<i>Title</i>	<i>First Name</i>	<i>Title</i>	<i>First Name</i>
	<i>(Means/Standard Deviations)</i>			
<i>Accessibility</i>				
This teacher is accessible.	3.53	3.13	3.27	3.57
	.86	.86	1.11	.94
<i>Status</i>				
This teacher probably has tenure (has been promoted to associate or full professor).	3.71	3.55	3.59	3.18
	.94	.87	.95	1.02
This teacher's income probably ranks in the top 10% of professors at the college.	3.29	3.24	3.18	2.78
	.94	.87	.98	1.01
This teacher would probably be influential in the college.	3.59	3.07	3.39	3.28
	.63	.75	.96	.80
The teacher is knowledgeable in his/her field.	3.90	3.55	3.76	3.86
	.86	.91	.79	.80
This teacher seems to be a good role model for students.	3.66	3.28	3.63	3.53
	.86	.80	.85	.90
This teacher probably has high status in the college.	3.64	3.17	3.46	3.03
	.83	.76	.74	.73
Combined Status Items:	3.68	3.31	3.51	3.28
	.60	.66	.68	.68

Note: Items were rated on a 1 to 5 scale, with higher numbers indicating stronger agreement.

professional title. Interestingly, male and female professors were not rated overall as differentially high in status in Study 2 which, by design, included equal percentages of stimulus male and female professors addressed by first name and title in the fictional transcripts. Students in Study 2 seemed to view professional title but not gender to be a good predictor of a professor's status. However, Study 1 found that male professors were more likely than female professors to receive the higher status professional title address. Consequently, students (and perhaps other faculty) may genuinely believe that they assign status to professors based on the professors' individual achievements rather than on the professors' gender; however, they seem to consider professional title to be a valid indication of these individual achievements, and they are more likely to address male professors by their professional title. Therefore, regardless of intentions, women's placement in the academic status hierarchy is compromised from the start.

Status Versus Accessibility

The price of status for female professors. But what about female professors who are addressed by their professional title? Are they perceived to hold the same degree of status as male professors addressed by title? The findings of our second study suggest that the answer to this question is "yes." But Study 2 also revealed that this higher status comes at a price for female professors. As predicted, female professors addressed by professional title were perceived to be less accessible than female professors addressed by first name. Female professors seem to be placed in the position of being perceived as *either* high in status *or* high in accessibility (both of which are characteristics that might impact students' evaluations of professors). By contrast, male professors addressed by title were perceived to be higher in both status and accessibility than male professors addressed by first name.

The contrasting status and accessibility implications for female professors addressed by title suggest that academic society may not have progressed as far from the discriminatory days of Mary Whiton Calkins as might be hoped (Benjafield, 1996). Women are no longer officially barred from academic positions because they are assumed to possess nurturing characteristics that better suit them for being homemakers; however, they seem to be expected to display these stereotypic characteristics in the workplace and may be penalized if their professionalism overshadows their nurturance. Eagly and Karau (1999) explained that gender norms can be both descriptive (beliefs about the characteristics that men and women *actually* have) and injunctive (beliefs about the characteristics that men and women *should* have). We reviewed a number of studies detailing repercussions of violating injunctive gender norms, including negative evaluations of effective female leaders whose agentic behavior may be perceived as a gender-role violation. The lower accessibility ratings of female professors addressed by title might be due to students' (perhaps unconscious) expectation that female professors display stereotypically feminine characteristics, which include dependence, warmth, and interpersonal sensitivity, but not professional accomplishment. Bernard (1964, as cited in Rubin, 1981) referred to students' expectation that female professors be more nurturing, lenient, and patient than their male colleagues as "academic momism."

Gendered expectations for male professors. In contrast, male faculty members addressed by title may be perceived to be fulfilling injunctive masculine norms. According to Burn (1996), the three primary gender norms for men are the toughness norm, the antifemininity norm, and, most relevant to the present research, the success/status norm. The injunctive success/status norm dictates that men should hold high-status jobs and be financially secure. Male professors addressed by title may be regarded as being more in line with the expectation that they display high-status characteristics. Male professors addressed by first name, like female professors addressed by title, might be perceived to be violating gender norms and may be evaluatively penalized for this gender-role violation in students' accessibility ratings.

Cross-dimension ambivalence toward female but not male professors. Macdonald and Zanna (1998) identified a number of students who held cross-dimension ambivalence toward feminists, perceiving feminists to be competent but unfriendly. When the importance of friendliness was primed in a simulated hiring situation, these students were less likely to hire women whose application materials suggested that they might be feminists. Cross-dimension ambivalence toward women is evident in the present research as well. Unlike their male colleagues, female professors seem to be caught in a double bind in which they

are perceived as possessing either status or accessibility, but not both. Future research might examine the relative importance of status and accessibility in teaching effectiveness, as well as in hiring and promotion, for both male and female professors.

Gender, Age, and Status

McConnel-Ginet (1978) asked "Is it our youth or our lesser status that leads us to receive more first name (addresses) from students and staff than our male colleagues?" (p. 31, as cited in Rubin, 1981). The present findings point strongly to status over youth. Female professors' greater probability of being addressed by first name, relative to their male colleagues, was more pronounced for older professors than for younger professors. The nature of this interaction between age and gender is inconsistent with the findings of Rubin (1981) and is, perhaps, inconsistent with common intuition as well. However, the findings are quite consistent with the findings of the 1999 MIT study ("A Study on the Status of Women Faculty in Science at MIT," 1999). Older female science professors at MIT reported more gender discrimination than their younger, female colleagues and noted that they had expected and perceived less gender discrimination during their early years in academia.

Why are older female faculty members accorded particularly low status in academia? Perhaps this effect is a carryover from earlier days when the status difference between male and female faculty was even more pronounced. Although few students reported that professors had asked for a particular term of address, they may have modeled the terms of address of their senior classmates who had modeled older students themselves. Thus, the tendency to address male professors by title and female professors by first name may have been established early in the careers of female professors and been passed down over the years from student to student. This finding may also be related to largely negative general ageist stereotypes, as well as to specific stereotypes of older women suggesting that they have lower intelligence, less financial stability, and weaker characters than their male peers (Bazzini, McIntosh, Smith, Cook, & Harris, 1997; Levin, 1988). Alternatively, students' strong tendency to address older female professors by first name may be due to the "academic momism" principle proposed by Bernard (1964) being perceived as particularly applicable to older female professors. Perhaps students see older female professors through a maternal lens and therefore feel closer and more comfortable with them.

Conclusion

The 20th century has been a transitional period for women in the labor force. From 1800 to 1980, the percentage of women employed outside the home rose from 5% to 51%

(Woloch, 1984). Although contemporary women are climbing the economic ladder and challenging the notion of stereotypically appropriate female occupations, women are still underrepresented in many fields and often do not receive the same status and compensation granted to their male peers. Academia is no exception. Although women presently hold 43% of advanced degrees in the U.S., only 35% of college professors and 17% of college presidents are women (Eagly & Karau, 1999). The American Association of University Professors reported that, from 1975 to 1999, there was an 11% increase in the percentage of faculty members who are women, but reported also that the gap in salaries between male and female professors during this time period increased as well (Goldberg, 1999). The present research delineates one of many lingering challenges for women in academia. Female professors, like other women in the workplace, may often have to decide whether to conform to traditional gender-role norms or to demand the status and success they deserve at the cost of likability.

Crawford et al. (1998) found that the tendency to negatively evaluate women who used the feminist term "Ms." had diminished over the past 15 years. Perhaps the opening decades of the 21st century will find women no longer negatively evaluated for being addressed by professional title and displaying other status characteristics. We can hope to find an improvement in women's status in academia, as well as in other occupations. But progress in this area may not happen automatically. MIT has implemented a number of changes to address the gender discrimination found in their university, including making the Committee on Women Faculty a standing committee and collecting equity data on a yearly basis. Several female faculty members at MIT have heralded the improvements in their professional lives that have resulted from these changes. Dr. Nancy Hopkins, a prominent molecular biologist and a founding member of the MIT Committee on Women Faculty, remarked that "the challenge now is what can you do so that this wonderful thing that has happened can become automatic and institutionalized" (Goldberg, 1999, p. A16).

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NOTES

1. Similarly, in 1887, Christine Ladd-Franklin was denied a doctoral degree in logic and mathematics at Johns Hopkins University on the basis of her gender. In 1926, after a distinguished career that included the introduction of her own theory of color vision, Ladd-Franklin was awarded the doctoral degree that she had earned 44 years earlier (Benjafield, 1996).

2. Recent studies employing the same participant population as the present study confirmed that students at this liberal arts college believe that men hold higher status than women in U.S. society (Stewart & Vassar, 2000; Stewart, Vassar, Sanchez, & David, 2000).

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