

## **Touching your students: the impact of a handshake on the first day of class**

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*Abstract: Can a simple handshake on the first day of class change student impressions of the instructor and the course? We compared students who received a handshake to those who did not at the first class meeting and evaluated teaching skills, instructor's ability to motivate student interest, and instructor's support of students as a function of touch group and instructor gender. Our findings revealed significantly higher ratings for female instructors than for male instructors when they shook hands, with these differences specific to ratings of instructor skills and instructor's motivation of students. In addition, students with whom male professors shook hands actually rated their professors lower on teaching skill and ability to motivate than those with no handshake. Thus, female professors may establish immediacy through the touch of a handshake, but male professors should avoid this seemingly innocuous touching of students.*

*Keywords: teaching, touch, handshake, student motivation, teaching evaluations, instructor gender, college students, immediacy*

Mehrabian (1969) defined immediacy as psychological availability or closeness, with behaviors regularly categorized as either verbal or nonverbal. When immediacy is applied to the classroom, verbal behaviors include calling on students by name, encouraging students to talk, and asking for student input on assignments (Gorham, 1988). Nonverbal classroom behaviors generally include smiling at students, making eye contact, and moving around the room while teaching (Andersen, 1979). Although both verbal and nonverbal immediacy behaviors correlate with increased motivation (Frymier, 1993; Wilson and Taylor, 2001), higher student grades (Wilson, 2006), and more positive attitudes toward the course and professor (Witt, Wheelless, and Allen, 2004; Wilson and Taylor, 2001), the verbal scale has been contentious. Robinson and Richmond (1995) suggested suspending use of the verbal scale because it measures "teacher effectiveness" rather than immediacy, and subsequent research revealed several factors of teaching represented on the verbal scale (Wilson and Locker, 2008).

Among the nonverbal behaviors offered by Mehrabian (1969), the teaching literature virtually ignores touch as a way to build rapport between teachers and students, even though touch represents the most obvious method to foster closeness. In fact, touch was part of the original immediacy scale, but teachers found it too controversial. Crump (1996) asserted that college professors should try hard not to touch students due to potential misinterpretation as sexual harassment. Nonetheless, Richmond, McCroskey, and Johnson (2003) subsequently found the idea of touch to be so compelling that they returned it to the nonverbal immediacy scale.

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Regardless of whether touch remains on the scale, most American teachers assert that touch is not necessary and may risk their reputations and perhaps their careers.

Students also seem to believe that teacher touch is negative. When asked their view, students disagreed with the statement “I like it when a teacher touches me” as indicated by a mean rating of 2.00 on a 1-5 scale, with 1 representing strongly disagree ( $N = 150$ , unpublished data). However, research indicates that student responses to touching contradict established beliefs. Guéguen (2004) exposed some students to brief touch on the forearm during a statistics exercise and found that students were more likely to volunteer for class participation if they were touched. In addition, Steward and Lupfer (1987) found that touching students twice on the arm during a post-test interview resulted in higher grades on the subsequent course exam. Further, students who were touched rated the professor more positively.

Student responses to touch often fluctuate based on both student and professor gender. Sanderson and Jorgensen (1997) examined all four possible gender combinations and reported the least appropriate combination (based on student ratings) to be a male professor touching a male student, followed by a male professor touching a female student, with the best pairing represented by a female professor touching a female student. Similarly, Rester and Edwards (2007) reported that excessive immediacy, which included touch, was seen as caring when offered by female professors but controlling when offered by male professors. Student gender did not moderate these effects.

Prior research employed touches to the arm, shoulder, and thigh, primarily. With the exception of the thigh, most touch situations seemed normal and authentic to the situation. However, all of these touches were from the professor to the student such that the student did not play an equal part in the touch. Perhaps as a result, students felt a loss of control when a male professor instigated touch. A common type of touch that allows more equality between the professor and student would be a handshake; although the handshake originates with the professor, the student is equally involved in the touch.

In our study, male and female professors either shook hands with students as they entered the classroom or did not shake hands with them. At the end of the first day of lecture, students rated their attitudes toward the professors and the course. In addition, they reported their attitudes toward touch. After removing variability associated with attitudes toward touch, we expected to find that students would have more positive attitudes toward female professors with a handshake than without; however, the opposite was expected for male professors. Because the majority of students in psychology courses are females, we did not expect to reveal an effect of student gender.

## **I. Methods.**

### *A. Participants.*

Students enrolled in four introductory psychology courses at three institutions in the southeastern United States participated in this study. The courses were conducted during the summer and fall of 2007. There were two female and two male instructors who taught the courses, with enrollments between 16 and 40 students each. One hundred and five students were present on the first day of class and were randomly assigned to the experimental conditions and completed surveys. Because 15 students indicated that they had met the teacher previously, their data were removed from the data set for final analyses. Ninety students (72 women and 18 men

with an average age of 19.50;  $SD = 2.34$ ) completed the two surveys at the end of the class period who had no previous experience with the instructor ( $n = 82$ ) or met the instructor once during new student orientation ( $n = 8$ ). Ethnicities included 44 Caucasians and 44 non-Caucasian (predominantly African American) students. There were 41 first-year students, 19 sophomore students, 17 junior students, 12 senior students, and one student of unknown classification.

### *B. Materials.*

A two-page survey was handed to the students as they entered the classroom at the beginning of class period, which they were instructed would be completed in the last 20 minutes of the class period. On the first page of the survey, students rated statements about their attitudes concerning the instructor (e.g., “The instructor seems like an excellent teacher”) and the course (e.g., “I expect to learn a lot in this course”), on a 5-point Likert-type scale (Strongly Disagree to Strongly Agree). Three items (opinion of the overall course, opinion of the effectiveness of the instructor, and overall opinion of the instructor) were scored on a 5-point scale from “Poor” to “Excellent.” Questions about the instructor focused on the teaching skills of the instructor, the degree to which the instructor can motivate or interest the students, and the degree to which the instructor likes or cares for the students. The first page of the survey included questions that requested demographic information about participants (age, gender, ethnicity, year in college, etc.). On the second page of the survey, students indicated their attitudes about touch on a 5-point Likert-type scale (Strongly Disagree to Strongly Agree). Questions focused on the students’ general attitudes about touching (e.g., “Touching is not okay,” “Touch is healthy”), their personal preferences about touch (e.g., “I prefer not to be touched often,” “I touch people often”), and attitudes about teachers touching students (e.g., “I like it when a teacher touches me”, “It is okay for a teacher to touch his/her students”), including three reverse-scored items (“Touching is not okay,” “It is not okay to touch people,” “I prefer not to be touched often”).

### *C. Procedure.*

Before the first day of class, the instructor prepared the two-page survey by folding it in half and taping or stapling it shut. The instructor then made an inconspicuous mark to designate whether the instructor would shake the student’s hand before handing the survey to the student. For example, a light pencil stroke was made on the back corner of the survey that was to be given to students with whom the instructor would shake hands.

On the first day of class, the instructor met students as they came into the classroom. As students entered, the instructor greeted the student, using a standard phrase such as “Welcome to the class” or “Welcome, my name is [instructor’s name],” using the phrases in a random order. At the same time, the instructor either shook the student’s hand and handed the survey to the student or simply gave the survey to the student. The student was then instructed not to do anything with the survey until the end of class. Once the time for class arrived, the instructor finished greeting students and proceeded to start class. General first-day-of-class activities occurred, e.g. handing out the syllabus, giving an overview of the course, introducing some material. In the last 20 minutes of class time, the instructor gave instructions to the students about completing the survey, appointed a student to collect the surveys when everyone had completed them and get the instructor, and then left the room. When the students had completed the survey, and the instructor reentered the classroom, the instructor discussed the study and used

it as a tool to introduce research methodology in psychology. Follow-up questions during the discussion indicated that students did not know the nature of the manipulation or the purpose of the study when they were filling out the survey. Students were also asked to see the instructor if they had concerns about the study or did not want their information discussed outside of the classroom, and the study was approved by the IRB.

## II. Results.

We conducted a factor analysis with varimax rotation on the instructor rating items in order to reduce the number of dependent variables. The analysis resulted in three factors that accounted for 62% of the variance. The rating items and their factor loading scores are presented in Table 1. The first factor is dominated by items that are related to evaluation of teaching skills. The second is dominated by items that represent perceptions of how much the instructor can motivate or interest students. And the third factor includes items that represent perceptions of how much the instructor seems to like or support students. Three new measures were constructed for each of the factors by calculating the average of the items with the highest factor loading scores on that factor based on a loading of 0.50 or higher. Chronbach's alphas for each of the new scales are presented in Table 1. All alpha coefficients were above the generally accepted minimum. Based on significant correlations among the new variables ( $p < 0.001$ ), we used MANOVA for subsequent analyses.

A 2 (handshake conditions) X 2 (gender of instructor) MANCOVA was conducted on the three instructor rating measures with touch as the covariate to evaluate the hypothesis that a handshake at the beginning of class would affect instructor ratings. Student gender was not analyzed due to a majority of female students in the sample. Complete data were available from 85 participants for this analysis. The main effect for handshake condition did not produce a significant difference, *Wilke's*  $\lambda = 0.97$ ,  $F(3, 84) = 0.83$ ,  $p = 0.48$ ,  $\eta^2 = 0.03$ . However, the interaction between handshake and gender was significant, *Wilke's*  $\lambda = 0.87$ ,  $F(3, 84) = 3.99$ ,  $p = 0.01$ ,  $\eta^2 = .13$ . Univariate ANOVAS revealed significant interactions for the "instructor skills,"  $F(1, 80) = 9.72$ ,  $p = 0.003$ ,  $\eta^2 = .11$ , and "motivates students,"  $F(1, 80) = 4.06$ ,  $p = 0.05$ ,  $\eta^2 = 0.05$ , measures. There was not a significant interaction for the "supports students" measure ( $p > 0.05$ ). All group descriptive data are found in Table 2.

**Table 1. Instructor rating items with factor loading scores.**

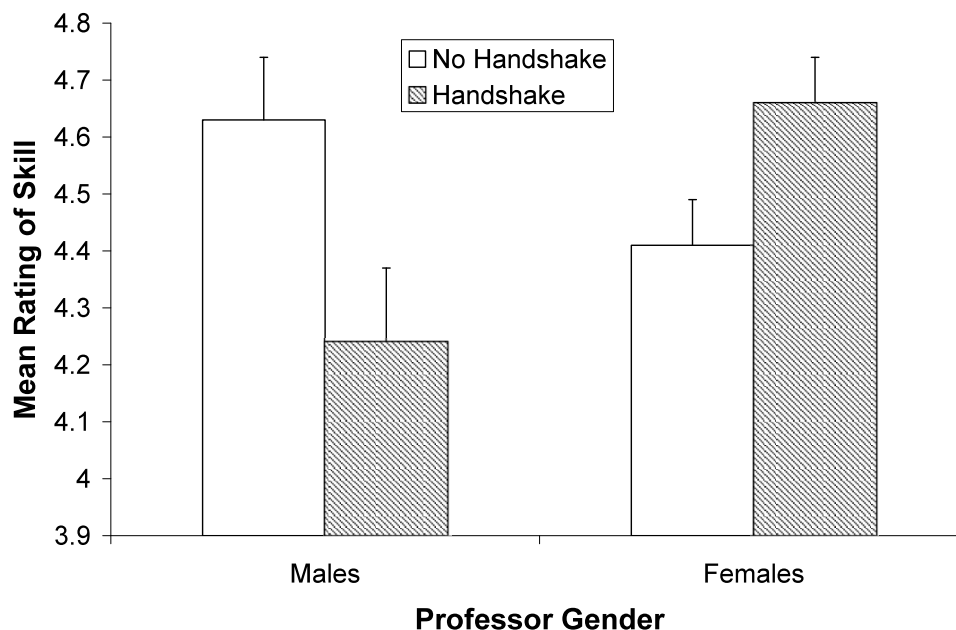
Instructor Rating Item	Instructor's Skills	Motivates Students	Supports Students
The instructor seemed well-prepared for class	<b>0.78</b>	-.008	0.15
Rate your overall opinion of this instructor.	<b>0.72</b>	0.37	0.23
Rate your current opinion of the effectiveness of your instructor.	<b>0.70</b>	0.34	0.32
Rate your current opinion of the course as a whole.	<b>0.64</b>	0.22	0.15
The instructor shows genuine concern for the students	<b>0.64</b>	0.21	0.39
The instructor presented material clearly	<b>0.63</b>	0.28	0.12
The instructor seems like an excellent teacher.	<b>0.58</b>	0.52	0.17
The instructor is likely to evaluate my work in a fair manner	<b>0.56</b>	0.10	0.29
The instructor seemed enthusiastic about the subject matter	-0.11	<b>0.78</b>	0.16
I enjoyed today's lecture.	0.43	<b>0.72</b>	0.02
I would recommend this instructor to a friend.	0.41	<b>0.69</b>	0.26
The instructor is likely to motivate me to do my best work	0.48	<b>0.61</b>	0.18
The instructor seems to like students.	0.15	0.17	<b>0.83</b>
The instructor seems to want students to succeed.	0.32	0.03	<b>0.82</b>
I expect to learn a lot in this course.	0.20	0.20	<b>0.62</b>
Chronbach's $\alpha$ for items with bold loading scores	0.89	0.79	0.73

Highest factor loading scores are presented in bold.

**Table 2. Descriptive data for handshake condition and instructor gender.**

	Male		Female	
	No Handshake <i>n</i> = 13	Handshake <i>n</i> = 20	No Handshake <i>n</i> = 30	Handshake <i>n</i> = 22
Instructor's Skills	4.63 (0.13)	4.24 (0.10)	4.41 (0.08)	4.66 (0.10)
Motivates Students	4.65 (0.13)	4.36 (0.11)	4.66 (0.09)	4.80 (0.10)
Supports Students	4.82 (0.11)	4.81 (0.09)	4.68 (0.07)	4.80 (0.09)

Based on our hypotheses, one-tailed Fisher's protected t-tests ( $p < 0.05$ ) were used to compare cell means for the two significant interactions. On "instructor skills," males were rated significantly lower in the handshake condition compared to the control condition. However, female instructors had significantly higher ratings by students whose hands were shaken than those in the control group. Within the handshake condition, females were rated higher on instructor skills than males. (See Figure 1.)



**Figure 1.** Handshakes caused lower student ratings of teacher skills for male professors and higher ratings for female professors. In addition, females who shook hands were rated as more skillful teachers than male professors who shook hands. Error bars represent *SEM*.

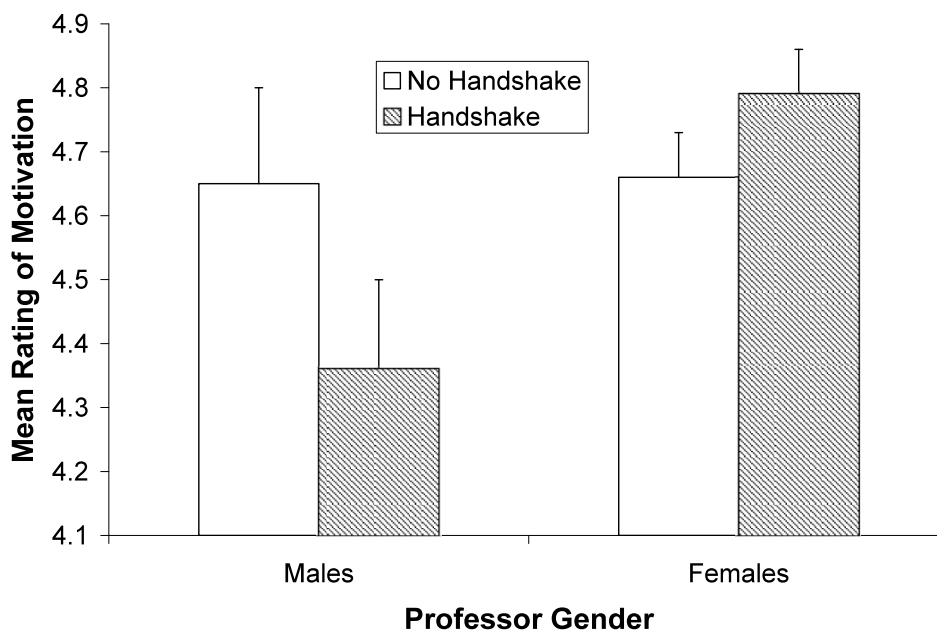
In a similar pattern, female instructors received significantly higher ratings than male instructors on the “motivates students” variable in the handshake condition. Further, male instructors were rated as less motivating by students with whom they shook hands than by those they did not. (See Figure 2.)

### III. Discussion.

As expected, we found an interaction between handshake and professor gender, with touch improving the ratings of female professors but decreasing the ratings of male professors. Although these results would be expected based on the few available studies on touch (Rester and Edwards, 2007; Sanderson and Jorgensen, 1997), our results extended research to include a simple handshake. We should note that students did not differ on their ratings of instructor support; larger cell means might allow a more accurate assessment of potential differences across the female instructor, with a handshake causing higher ratings than no handshake.

One long-standing theory regarding gender differences in touch (Henley, 1973) suggests that touch is an expression of control and dominance. According to this theory, males initiate touch with females to establish and maintain their domination. In addition, shaking hands has historically been considered a predominantly a male activity (Chaplin, Phillips, Brown, Clanton, and Stein, 2000; Steir and Hall, 1984). Hand shaking is more likely to be initiated by males, and male-male handshaking is more frequent than female-female handshaking (Steir and Hall, 1984). Handshaking has been shown to influence a person’s initial impressions of the greeter, and these impressions extend to inferences about the greeter’s personality (Chaplin et al., 2000). The current study demonstrates that handshaking influenced the student’s impressions of the

professor's skills and motivation, and that the impression was negative for the male professors. Because the sample was predominantly female, the handshake may have been interpreted as a controlling behavior when given by the male professor. When given by the female professor, however, the same behavior would be seen as less controlling because it was a same-gender interaction.



**Figure 2.** Handshakes caused lower student ratings of male teachers' perceived ability to motivate students than handshakes by a female professor or a male teacher who did not shake hands. Error bars represent *SEM*.

Guéguen (2004) suggested that touch could be used in the classroom as an indication of immediacy and that it had positive outcomes, even with a male instructor. It is important to note, however, that the study was conducted in France, which is considered a high-contact culture. On the other hand, the United States, in contrast, is considered a non-contact culture (DiBiase and Gunnoe, 2004), and so touch by a male professor in the current study may not be as welcome, especially by females. Of all the nonverbal immediacy behaviors, touch is the most likely to be labeled as sexual harassment (Mongeau and Blalock, 1994). Thus, it may not be surprising that a handshake by a male professor on the first day of class caused a negative reaction from a predominantly female student sample. It is intriguing that female professors generated positive impressions from the handshake, although perhaps not surprising. While reviewing the literature on touch and gender, DiBiase and Gunnoe (2004) noted that work subsequent to Henley's original theory showed that females initiate touch as much as, if not more than, males and that in the U.S. only hand touching is interpreted as an expression of dominance. If true, then students are less likely to interpret a female professor's touch as unusual. Further, because the handshaking is occurring predominantly between the same genders, the handshake may not be interpreted in the same manner as the opposite-gender handshake.

Touch may be a useful nonverbal immediacy behavior to positively impact the classroom (Guéguen 2004; Steward and Lupfer, 1987). The current study suggests that positive outcomes occur if a female professor is initiating the touch. Caution is suggested, however, with regard to male professors using touch as a nonverbal immediacy behavior, at least initially. For male professors, familiarity and rapport may need to be established before touch can be used to increase immediacy.

Some limitations of the current study include the use of slightly different welcoming phrases, although instructors were careful not to change the phrase based on whether or not students were touched. Another potential factor that may have influenced results was that students who did not receive a handshake may have seen other students receive a handshake. However, when students were debriefed, they were asked if they had noticed anything unusual about the instructor greeting some students with a handshake, and students indicated that they had not taken notice of the type of greeting. Future research might also assess both male and female students, as it is likely that student gender would moderate effects. Although male-male touch has been rated as the least acceptable combination (Sanderson and Jorgensen, 1997), male-male handshake is quite common and could offer an acceptable method of touch. Based on the high rate of male-male handshakes (Steir and Hall, 1984), we expect that male-male handshaking would be rated as more acceptable than a male professor shaking hands with a female student.

In addition to the potential moderators offered above, future studies should also address the potential long-term effects of a handshake on student motivation and attitudes toward the professor and course. Other research has demonstrated long-lasting impact of the first day of class (Wilson and Wilson, 2007). The question is whether the handshake has any continuing effect on the students. Unfortunately, the design of the current study does not provide the opportunity to answer this question. Another question is whether there are any circumstances that would provide an opportunity for male professors to appropriately use touch to increase immediacy in a non-contact culture such as the U.S., or whether touch as a nonverbal immediacy behavior is restricted to female professors based on the constraints of the culture.

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