

Effects of Graduate Teaching Assistant Attire on Student Learning, Misbehaviors, and Ratings of Instruction

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This study examined the influence of teaching assistant attire in the university classroom. Significant relationships were found between instructor attire and student cognitive learning, affective learning, and ratings of instruction. Analysis of variance indicated significant differences in these variables by levels of teaching assistant dress. Significant negative relationship was found between instructor attire and student likelihood of misbehavior. Analysis of variance revealed that student misbehaviors were less likely for teaching assistants with high professional dress.

KEY CONCEPTS Graduate Teaching Assistants, Nonverbal Communication, Attire, Dress, Student Learning, Student Misbehaviors, Student Ratings of Instruction

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Basic course directors and other faculty who work in graduate teaching assistant (GTA) training frequently stress the critical importance of teacher professionalism to these graduate instructors. GTAs are often told that they need to act and dress in ways appropriate to their roles as classroom leader or facilitator. Often the advice to "dress professionally" is accompanied by numerous references to research literature that proclaim the significant effects of attire on speaker persuasiveness, speaker credibility, compliance-gaining, etc. It should be noted, however, that much of the research on the effects of clothing explores contexts other than the college classroom. Though the link to the college classroom seems reasonable, Morris, Gorham, Cohen, and Huffman (1996) suggest that "caution be used in drawing conclusions regarding potential payoffs of professional classroom dress based upon literature not specifically concerned with the classroom context" (p. 135). There may be special variables, unique to university classrooms, that mediate the effects of attire--specifically instructor attire--in the classroom. Because of this, there is a critical need for research that examines the effects of dress in the classroom. The purpose of the current study was to explore the effects of GTA attire in the university classroom. Specifically, the study examined the relationship of GTA dress (as perceived by students) with student perceptions of affective/cognitive learning, student misbehaviors, and student ratings of instruction.

GRADUATE TEACHER ASSISTANT INSTRUCTION

The role of a teaching assistant is frequently different than the meaning the GTA title suggests. In many university settings, these graduate students are not "assistants" at all. Instead, they are frequently thrust into the role of college instructor with little or no training in instructional strategies. Even though most departments offer some limited training and instructional education for these new instructors, GTAs are frequently assigned their own autonomous classes with an implicit sink or swim atmosphere. There are many GTA training programs (e.g. University of Washington, University of Colorado, University of Texas, Ohio State University, Syracuse University, etc.) that are nationally recognized for their efforts in enhancing and promoting high quality GTA training. Still, on a departmental or university-wide level, even the best of GTA training can be limited in time and scope. Training limitations combined with lack of teaching experience can pose serious challenges to graduate instructors. GTAs often experience understandable anxieties as they approach or undertake their teaching assignments. Many experience fears of their own abilities and competence, in the subject matter and in the role of instructor. Many experience anxiety over basic classroom management and keeping students on task (see Williams & Roach, 1992).

GTA training programs strive to deal with these anxieties and to do the best they can in preparing graduate students for their instructional roles. Training topics often include "how to lecture," "how to lead a class discussion," "how to keep a grade book," "how to construct a test," "what to do if there is a bomb threat," etc. More ambitious training programs deal with "how to promote cognitive and affective learning," "how to address different learning styles," "how to incorporate cooperative learning and mentoring approaches," "how to be a facilitator," etc. Many of these training topics are discussed with anecdotal advice from seasoned faculty and with research findings in the area of instruction. The domain of nonverbal communication in the classroom, however, is largely overlooked. At best, it is given cursory attention with informal advice from experienced faculty. Nonverbal factors, such as instructor attire, immediacy, environment, etc., may well be as, if not more important, than many of the instructional topics listed above. The current study focuses on the influence of instructor attire, specifically that of GTAs, in the college classroom.

GENERAL EFFECTS OF ATTIRE

Many initial and enduring perceptions of an individual are formed by simple observation and evaluation of the clothing he/she wears. Johnson, Nagasawa, and Peters (1977) found, for instance, that "both male and female college students evaluated a female peer when she wore in-fashion clothing as being more sociable than when she wore out-of-fashion clothing" (p. 58). Individuals often make assessments of an individual's socio-economic status by noticing what he/she is wearing. Clothing can indicate the type of profession or career track the wearer has. Attire can be an indication of attitudes, beliefs, and values an individual holds. Clothing can even be an indication of the personality or psychological disposition of the wearer (e.g., Rosenfeld & Plax, 1977). It should be noted, that whether accurate or not, judgments of a person based on clothing serve as a source of information, a foundation for opinion and relationship formation, and a basis for how others communicate with that person.

Scientific inquiry into the effects of clothing is relatively new. According to Sybers and Roach (1962), "the first formal exploration of areas of possible research in textiles

and clothing related to the social sciences was at a conference of home economists, sociologists, psychologists, and economists held in 1947 at Teacher's College, Columbia University" (p. 185). Since that time, much empirical evidence on the effects of clothing has been gathered. Aiken (1963) found significant correlations between dress styles and personality. In 1975, John Molloy's famous book, *Dress for Success*, emphasized a very practical role of clothing in promoting the overall perception and well-being of an individual. Hubble and Gelso (1978), examining the effects of clothing in a counseling context, found that "clients experienced significantly lower anxiety with counselors in casual versus highly casual attire" (p. 581). Also in a counseling context, Barak, Patkin, and Dell (1982) found that counselor attire accounted for 13% and 4% of the variance in ratings of counselor expertness and attractiveness (respectively). In a college setting, Abbey, Cozzarelli, McLaughlin, and Harnish (1987) explored the effects of clothing on sexuality ratings. Results of this study indicated that females "who wore revealing clothing were rated as more sexy and seductive than those wearing nonrevealing clothing" (p. 108). Interestingly, results also indicated that males and females "were perceived as more kind and warm when they wore nonrevealing clothing" (p. 108).

Clothing has an obvious effect on the perceived status of an individual. "Clothing throughout history has served as a status symbol in some manner. Whether by sumptuary law or prohibitive cost, some clothing items were kept for the exclusive use of those with power and status" (Sybers & Roach, 1962). Generally, the higher status individual is associated with more expensive, higher quality apparel. Whether an individual wears expensive, more formal clothing to project an image of higher status or simply wears expensive, more formal clothing because he/she has high status, the effect on how others view and react to him/her is similar. Knowles (1973) found that passersby individuals are significantly less likely to walk through the interaction space of a conversing group when the group members are dressed in formal business attire than they are when the conversing group members are dressed in informal attire.

Several studies have addressed the effects of clothing on compliance-gaining. Kleinke (1977) set up an experiment, whereby female confederates would ask people to borrow a dime. More dimes were given to neatly dressed confederates than were given to confederates who were sloppily dressed. Notably, males gave more dimes to confederates than did females. Hensley (1981) set up a similar experiment in two different contexts, whereby confederates asked for dimes to make a phone call. Results revealed that "well-dressed confederates received more money at the airport; poorly dressed confederates received more money at the bus station" (p. 3). These findings emphasized the importance of similarity of dress between source and target in compliance-gaining situations. Walker, Harriman, and Costello (1980) had well and poorly dressed confederates ask people to take part in a street survey. Well dressed confederates received significantly more compliance than did the poorly dressed confederates. Similar to results from other studies, "compliance appeared to increase when the style of dress of the subject and the interviewer [confederate] were similar" (p. 160). Though they focused on counseling rather than on compliance, Hubble and Gelso (1978) found, interestingly, a warrant to this similarity principle. They found that that clients "whose attire was typically casual manifested the most positive reaction to traditionally attired counselors, whereas those whose dress was typically highly casual exhibited the most positive reaction to casually attired counselors" (p. 581).

In the public speaking realm, Beebe and Beebe (1997) note that "there is

considerable evidence that your personal appearance affects how your audience will respond to you and your message, particularly during the opening moments of your presentation" (p. 296). They go on to suggest that if an audience is wearing formal attire, "you would be wise to avoid dressing more casually" (p. 296). Several studies indicate that more professionalism in dress influences the effectiveness of a public speaker. Greater speaker persuasiveness may be fostered from heightened perceptions of speaker competence, credibility, professionalism, etc. that professional dress tends to create. O'Neal and Lapitsky (1991) found significant effects of clothing on the credibility of the message source in an advertising situation. Results of this study indicated that "not only does what a person wears influence the perceptions of dimensions of credibility, but also the appropriateness of the dress tends to be relevant to the message communicated and the response to the source" (p. 33). Similarly, Bassett (1979) found that "receiver judgments of source credibility are affected by source attire" (p. 284). Specifically, while "ratings of composure were unaffected by attire," judgments of source competence were positively affected by high status dress (p. 284-285). Rosenberg, Kahn, and Tran (1991) studied the role of shaping candidate appearance and manipulating the vote in a political context. In terms of female candidate attire, they found that responses were more favorable when the candidate was featured in formal conservative dress (e.g., suits and formal blouses). Furthermore, it was noted that "simple contrasts or white is preferred to dark or patterned outfits, and necklaces and earrings create a more positive political image than no jewelry at all" (p. 351). It is logical, then, that favorability of candidate image tends to make the candidate more persuasive in speech making and in garnering votes.

When looking at the effects of clothing, it is important to consider the external *and* internal effects of clothing on an individual. Clothing affects how others perceive and respond to an individual. Harris, Ramsey, Sims, and Stevenson (1974) found that when athletes were in uniform, they were rated more favorably on professionalism, team spirit, coordination, natural ability, over-all ability, and muscular strength than when they were not in uniform. Studies also indicate that clothing has an effect on how the wearer feels internally. How an individual feels internally will affect how he/she behaves externally. Schneider (1974) found that people present themselves more positively when they are well dressed than when they are poorly dressed. An individual wearing powerful clothes will have a tendency to feel more powerful, confident, and assertive. Because of these feelings, the wearer may engage in powerful, confident, and assertive behaviors in interactions with others. Clothes associated with less power, on the other hand, have the potential to make the wearer feel less powerful, less in control, and less assertive. This in turn, could potentially induce wearer behaviors accordingly. In an interesting study, Frank and Gilovich (1988) found that professional athletes who wear black uniforms are perceived as rougher and actually are rougher in many cases. These findings support the idea that clothing has internal effects on the wearer as well as an influencing effect on the person is perceived by others. One should be quick to note the role of appropriateness along with these clothing trends. Being radically over or under dressed for an occasion or in comparison to the expectations/dress levels of others in a particular context is likely to produce negative external and internal perceptions for the wearer.

CLOTHING EFFECTS IN THE CLASSROOM

Though much research indicates the significant influence of attire in general, there

are special dynamics in the college classroom that are unique. Morris, Gorham, Cohen, and Huffman (1996) caution against overgeneralizing research on the effects of clothing in general to the classroom context. There may be factors unique to the classroom setting that mediate the effects of attire. A classroom setting involves teacher-student interactions over time. This temporal factor may reduce the initial impact of variables such as attire. Secondly, unlike a business or professional environment, classroom activities do not focus directly on financial profit. Instead, the classroom is an arena for facilitation of knowledge—for learning. Because the goals are different, the effects of professional dress may be different as well. On the other hand, however, clothing may well have effects in the classroom similar to those observed in business and professional settings.

A few empirical studies have addressed the effects of attire in an instructional setting. Before looking at perceptions of instructor dress in the classroom, it is interesting to note studies dealing with impressions and effects of instructor dress among school administrators and teachers. Newhouse (1984) found significant effects of dress in teacher to teacher interactions. Specifically, Newhouse found that for elementary and secondary teachers, "age, gender, and clothing fashionability affect one's desirability as a partner on a cooperative project" (p. 158). Lang (1986) found that though there is often no official dress code for teachers, there are strong unofficial dress expectations and preferences for teacher dress among administrators. In a study of secondary school principals, Lang (1986) found that school administrators "exhibit a strong belief that attire is related to school success," admit that "they are influenced by the candidate's dress" in a teacher interview situation, feel that "colleges of education should conduct seminars about dress for student teachers as well as for current classroom teachers," "exhibit strong disfavor for casual dress," feel that casual dress contributes to "school discipline problems," and feel that conservative and sport attire styles are "positive assets in affecting student achievement" (p. 58-59). Lang cited John Molloy as stating, "One of the reasons teachers are not paid as professionals is that they don't look like professionals, and until they do look like professionals, they will never be paid like professionals."

In addition to the effects of instructor attire on perceptions of other teachers and administrators, a few studies have explored the effects of instructor attire on student perceptions. Davis, Clarke, Francis, Hughes, MacMillan, McNeill, and Westhaver (1992) found that junior high students, when shown photos of teachers in formal dress and in casual dress, expected "more respect to be shown to the teacher in formal dress" (p. 27). Lukavsky, Butler, and Harden (1995) examined the effects of female instructor dress on student perceptions of teacher characteristics. In this study, "formal dress style was a dark two-piece skirted suit with a white blouse. The moderate dress style was a pleated, button-front skirt, a long-sleeved button-front cardigan sweater, and a white blouse. The informal dress style included dark jeans and a long-sleeved sweater with a high neckline" (Lukavsky, Butler, & Harden, 1995, p. 233). Study results indicated that instructors with informal dress were rated as most approachable and flexible. Additionally, however, these instructors also had ratings of least respect. Furthermore, Lukavsky et al. (1995) found that moderate instructor dress was associated with the highest ratings of respect and with high ratings of approachability. Morris et al. (1996) in a controlled experiment, explored the effects of guest lecturer attire in the college classroom. Results indicated a positive influence of formal dress on student ratings of lecturer competence but no relationship between dress and

homophily. Results also indicated, however, that student ratings of lecturer sociability, instructor extroversion, and interesting presentation of material were higher for lecturers in casual dress than for those in more formal modes of dress. In a follow-up study, Gorham, Cohen, and Morris (1997) found that "the greatest effect of attire . . . appears to be on judgments of instructor extroversion, with teachers choosing casual dress rated as the most extroverted (p. 18). Notably, they also found no "significant interaction between attire and immediacy" and no effect of lecturer attire on actual student learning "as measured by student performance on the quiz items following the lectures" (Gorham et al., 1997, pp. 18-19). Westmyer and Flaherty (1996) found a significant relationship between instructor dress and perceptions of instructor credibility. Additionally they found that students associate formally-dressed instructors with subjects like Business and Chemistry; casually-dressed instructors were associated with Education and Physical Education.

Studies on the effects of instructor clothing, especially that of graduate teaching assistants, in the college classroom are few. Many times information in this area is anecdotal or experiential in nature. Often teachers will share bits of wisdom with new teachers: "dress like you are a professional teacher — not like you are one of them"; "dress sternly or authoritatively in the first few class meetings to establish proper teacher-student respect"; "dress in darker colors and more business like on test days"; "if you need to warm up to the class, dress more expressively"; "if you need to gain more control and establish distance, dress more conservatively." A broader scope and depth of empirical research in this area is needed to add to and confirm/disconfirm anecdotal information. Such research could positively impact the training process and classroom teaching success for graduate teaching assistants.

RATIONALE AND RESEARCH QUESTIONS

Morris et al. (1996) dealt primarily with the effects of guest lecturer dress on student perceptions of the lecturer (i.e., general perceptions of, homophily, etc.). The current study sought to explore the effects of student perceptions of GTA attire (formed over the course of a semester) on various instructional variables. Specifically, the current study examined GTA attire and its effects on cognitive learning, affective learning, and student misbehaviors. Also, the current study probed the effects of GTA attire on student ratings of instruction.

When approaching the topic of instructional attire, it is helpful to explore and solidify definitional issues. In much of the literature on attire, the terms "professional" and "formal" are often used interchangeably. "Professional" attire generally refers to dress appropriate for a particular career position, role, and/or function. Clothing patterns appropriate for a particular profession would certainly differ, for example, between a life guard, a university instructor, and surgeon. "Formality" of dress, though often associated with the "professionalism" of dress, is a slightly different construct. Most individuals would consider an aerobics trainer dressed in sweats to be dressed professionally, but probably would not consider this trainer to be dressed formally. There would certainly be a difference between formal business attire worn at the office and formal social attire worn at a wedding. Differences notwithstanding, "professional" dress and "formal" dress are frequently considered together in a general instructional or business context. For purposes of the current study, professional dress is considered to be instructor attire that is above the casual attire levels of the students. It is a "dressing up" — a more formal level of attire than that worn by students.

Despite general research evidence advocating the positive effects of professional dress, many GTAs (and faculty) do not feel that "dressing up" to teach is helpful, appropriate, or even necessary for teacher professionalism. Individuals in this camp may argue that the person is more important than what he/she wears, that instructor relationship with students is more important and influential than instructor attire, that homophily and comfortability are important factors, and that as long as instructor attire is within reason, it has little effect on students and learning. Also, the argument is made that professional dress may cause the GTA to be perceived as stilted, formal, and less immediate with the students. In the other camp, however, individuals argue that though professionalism is much bigger than mere attire, attire still creates strong impressions of professionalism and thus affects communication, relationship, and interaction between GTAs and their students. Because of this, the argument is made that GTAs should *look* and act as professional as possible.

Student Learning

Several factors significantly linked to student learning may be influenced by instructor attire. Teacher immediacy, for example, has been found to have a strong relationship with student learning. Various characteristics of GTA dress may affect perceptions of instructor immediacy, and thus influence learning variables. Though indirect in effect, this explanation may account for a significant amount of variance in student learning. On the other hand, however, it may be that initial effects of GTA attire on student perceptions of immediacy are overcome by more powerful factors such as teacher personality, teacher-student interaction characteristics/frequency, teacher communication style, teacher affect orientation, student need for the course, etc., such that student perceptions of teacher immediacy are not affected by instructor attire (e.g., Gorham et al., 1997).

In a more direct way, instructor attire may influence student affect for the teacher, student mood, student motivation to learn, and student perceptions that classroom activities are important. If the teacher dresses in a fashion to suggest that the classroom event, the activities, the assignments, the teacher-student interactions, etc. are important, the student may respond by adopting more professional attitudes toward class discussions, reading the text, preparing assignments, and studying. These types of student behaviors, in turn, are likely to produce more positive learning results. If the teacher dresses in such a way to suggest that the class and its activities are not really serious or important, the students may respond in like form and perform less satisfactorily. Conversely, it may be that teacher dress has limited or no relationship to student learning.

Student Misbehavior

Citing research (e.g., Burroughs, 1990), Kearney and Plax (1992) note that "in a typical college classroom of approximately 30 students, we can expect 5 or 6 of them to avoid or otherwise resist doing something that the teacher wants them to do" (p. 85). Student misbehaviors pose problems for any instructor, but especially for GTAs. Though at the college level one might postulate that student misbehaviors are primarily a result of students making inappropriate choices rather than the result of some instructor attribute or behavior, instructional research suggests that there may be teacher "misbehaviors" that foster or invite student misbehavior. Kearney, Plax, Hays, and Ivey (1991) derived a list of teacher misbehaviors that could potentially

affect student satisfaction and perhaps even foster student misbehaviors. Though the list of teacher misbehaviors ranged from bad grammar to verbal abuse, the "most frequently cited misbehavior types were sarcasm and putdowns, absent, strays from subject, unfair testing, and boring lectures" (p. 321). Other teacher "misbehaviors" might also include how a teacher tries to gain compliance from students. Plax, Kearney, Downs, and Stewart (1986) found that when an instructor is using antisocial compliance-gaining strategies, he/she is more likely to encounter student resistance than when he/she is using prosocial strategies. In addition to these instructor misbehaviors, there may be certain instructor attributes, such as the level of professionalism in dress that are related to levels of student misbehavior. If, for instance, students perceive casual or sloppy GTA dress as a sign that the GTA does not have a serious professional attitude toward teaching, the GTA does not care about the students or the class, the GTA is not competent in the subject matter, the GTA is socially or relationally incompetent, etc., it is possible that students may respond to this perception by engaging in more off task behaviors in class, less diligence in completion of and turning in assignments, more tardiness/absenteeism, and perhaps even more hostile confrontation with the GTA.

An additional area of concern may be found in the question of appropriate teacher-student distance. Frequently, faculty have more status, are older than their students, and have more obvious confidence in their subject matter and in directing classroom activities when compared to GTAs. Because of these factors, faculty may be afforded more respect and natural teacher-student distance than that given to GTAs, and thus may encounter less student misbehavior than that experience by GTAs. GTAs, conversely, are typically closer in age to their students and may have to work harder to establish appropriate teacher-student distance. Additionally, GTAs may have to work harder to project themselves as competent in teaching and in subject matter. Notably, Roach (1991) found that GTAs differ from faculty not only in types of compliance-gaining tactics used in the classroom (i.e., GTAs use more negative/antisocial strategies than faculty do), but that, importantly, GTAs use more compliance-gaining strategies overall than do faculty. Though compliance-gaining strategy use may reflect GTAs going a bit overboard in establishing control and authority, it is more likely that this increased GTA compliance-gaining use is indicative of greater need. If this indeed is the case, it is logical that GTAs should make every effort to appear professional in their attire to promote appropriate levels of teacher-student distance and respect.

Student Ratings of Instruction

Several key variables have been found to be associated with student ratings of instruction (SRIs). Kierstead, D'Agostino, and Dill (1988) suggest that warmth and friendliness of the teacher will lead to higher student ratings. Instructor interpersonal skills are another important influence on SRIs (Schechtman, 1989). Beatty and Zahn (1990) cite the importance of instructor sociability, and Feldman (1986) points to the role of instructor personality and attitude in influencing instructor ratings. Another important variable contributing to student perceptions and thus to student ratings would be that of instructor vocalics or paralanguage cues. Cooper (1995) notes that "vocal cues can create the mood of a classroom. Obviously other nonverbal cues also contribute to the classroom's mood, but because teachers talk so often, paralanguage cues no doubt carry quite a bit of weight! A harsh, threatening voice is much less

conducive to learning than a pleasant, warm voice" (Cooper, 1995, pp. 78-79).

In specific reference to TAs, Buerkel-Rothfuss and Fink (1993) found that "two sets of TA behaviors emerged as critical to students' perceptions of quality teaching by TAs: degree of professionalism displayed and ability to exert appropriate levels of authority in the classroom" (p. 83). Westmyer and Flaherty (1996) found that "formally-dressed instructors are perceived as more credible than casually-dressed instructors" (p. 6-7). This heightened perception of instructor credibility may lead to higher ratings of instruction. It may be that instructors, particularly GTAs, who are dressed more professionally come across as more competent in teaching and in knowledge of subject matter. On the other hand, GTA dress may have no impact whatsoever on SRLs. It may be that students rate instructors by actual quality of instruction rather than on peripheral factors such as instructor attire.

In light of these issues, the current study explored the following questions.

- RQ1 To what extent are student perceptions of teaching assistant dress related to student affective learning?
- RQ2 To what extent are student perceptions of teaching assistant dress related to student cognitive learning?
- RQ3 To what extent are student perceptions of teaching assistant dress related to student self-reported likelihood of misbehaviors?
- RQ4 To what extent are student perceptions of teaching assistant dress related to student ratings of instruction?
- RQ5 Does a significant difference exist between teaching assistants and faculty on the relationships of instructor dress and student affective learning, student cognitive learning, student likelihood for misbehaviors, and student ratings of instruction?

Often, individual's evaluations of others are based on the individual's own personality and personal preferences. In light of this, it is possible that student ratings of instructor attire may be influenced by the student's own clothing preferences or orientations. Because of this, the following research question was explored.

- RQ6 What the relationship between student clothing orientation and student ratings of instructor attire?

METHOD

Subjects and Data Collection

Subjects for the study were 355 students enrolled in basic communication courses at a large Southwestern university. Demographic assessments of subjects revealed the following: 177 males, 175 females, and 3 who did not indicate gender. Of these there were 56 freshmen, 112 sophomores, 79 juniors, 104 seniors, 0 graduate students, 1 who marked "other" and 3 who did not indicate classification. The average age of the subjects was 21. Though the ethnic background or race of the student subjects was not requested on the survey form, the participants were drawn from a university pool with the following student racial percentages: 81% White, 10% Hispanic, 3% Black, 3% "Non-Resident Alien," 2% Asian, and less than 1% "American Indian." Survey

instruments were given to students during the last month of the semester. Survey instructions directed subjects to rate and provide information "regarding the TA instructed class you have immediately before this one." If students did not have a class taught by a TA, they were directed to fill out the survey referencing a faculty instructor. Two hundred seventy students referenced TAs; seventy-nine students referenced faculty instructors. Of the classes with GTA instructors, 151 were taught by males, 118 were taught by females, and 1 was not identified by gender. Over 91 GTAs were referenced. Subject areas for all classes referenced included Social Sciences, Geo-Sciences, Foreign Languages, Business, Physical Education, Human Sciences, Mathematics, Communication, Biology, Philosophy, Engineering, Range and Wildlife Management, Theatre, and Home Economics.

Instruments

Student perceptions of instructor dress were measured by a 7 item professional dress assessment instrument. Students were asked to rate instructor dress, on a scale from 1 to 7, using the following semantic differential bi-polar adjectives: informal-formal, wrinkled-pressed, inappropriate-appropriate, dirty-clean, professional-non-professional, neat-sloppy, and fashionable-unfashionable. Positionings of favorable adjectives and unfavorable adjectives were mixed to control for response bias. Alpha reliability for the professional dress assessment instrument was .88.

Affective learning was measured with a scale developed by Gorham in 1988 (see also Scott & Wheelless, 1977). Students were directed to respond to the following items using 7 point semantic differential scales: attitudes toward course content, attitudes toward behaviors recommended in this class, attitudes toward the instructor of this class, likelihood of engaging in behaviors recommended in this class, likelihood of enrolling in another course of this type, and likelihood of taking another course with the teacher of this course. Alpha reliability for the affective learning measure was .97.

Cognitive learning was measured with a scale adapted from Richmond, McCroskey, Kearney, and Plax (1987). This measure was also used in Roach (1994). Students were asked to respond to the following questions, using a scale of 0 = Nothing to 9 = More than any other class you have had: "How much are you learning in this class?," "How much do you think you could be learning in this class if you had an ideal instructor?," "How much knowledge/understanding are you gaining in this class?," and "If this class were being taught by the best possible instructor, how much do you think you could be learning?" Because the current study did not explore learning loss, items 2 and 4 were not computed and analyzed. Alpha reliability for the cognitive learning measure was .94.

Student misbehaviors were measured by a fourteen item instrument derived from active and passive student misbehaviors cited by Plax and Kearney (1990) (see also Plax, Kearney, & Tucker, 1986). Students were asked to indicate the likelihood/frequency they engage in misbehavior items on a scale from 0 = Never to 4 = Very Often. Misbehaviors items included: cheating, asking counterproductive questions, challenging the teacher's authority, diverting classroom talk from the lesson, leaving class early, walking in late to class, non class-relevant talking during class, inattention to the teacher, lack of attendance, turning in assignments late, failure to turn in assignments, sleeping in class, reading the newspaper in class, and doing other homework in class. Alpha reliability for the misbehavior instrument was .79.

Student rating of instruction was measured by a four item scale. Students were

directed to use a Likert-type scale (Poor=1, Weak=1, Average=2, Good=3, and 4=Excellent) to respond to the following statements: "The overall quality of this course"; "I would tell other students that this course was . . . "; "The overall effectiveness of this instructor"; and "I would tell other students that the instructor was" Alpha reliability for the SRI instrument was .95.

Student clothing orientations was measured with the instrument developed by Rosenfeld and Plax (1977). This instrument is composed of seventeen items that probe subjects' attitudes toward clothing. Four clothing orientations or dimensions are derived from the instrument: clothing consciousness, exhibitionism, practicality, and designer. Clothing consciousness refers to "the degree to which an individual is concerned with his or her clothes" (p. 25-26). Exhibitionism is "an individual's desire to wear revealing clothes" (p. 26). Practicality is "an individual's interest in the practical as opposed to the aesthetic value of clothes" (p. 26). Designer is the designation that indicates "the degree to which an individual cares to be actively involved in clothing as a vocation" (p. 26). Each dimension provides a score that identifies a subject's clothing dispositions on a continuum from low to high. Alpha reliabilities for each of the dimensions in the clothing orientation instrument were .74, .51, .72, and .64 respectively.

ANALYSIS AND RESULTS

The relationship between student clothing orientations and student ratings of instructor clothing (RQ6) was nonsignificant for all of the four clothing orientations: consciousness, exhibitionism, practicality, designer. This indicated that students' own clothing orientations had no significant relationship with how they judged the attire of their instructors. This was true for student ratings of TAs and faculty.

The first two research questions addressed the relationship between student perceptions of TA dress and student learning. A significant positive correlation ($r=.50$, $p=.0001$) was found between TA dress and student affective learning, indicating a strong moderate relationship. Similarly, a significant positive correlation ($r=.36$, $p=.0001$) was found between perceptions of TA dress and student cognitive learning, indicating a low to moderate relationship.

The third research question explored the relationship between student perceptions of TA dress and student self-reported likelihood of misbehaviors. These misbehaviors were active and passive in nature. A significant negative correlation ($r=-.19$, $p=.001$) was found between TA dress and student misbehaviors. This indicated that as teacher dress increased in professionalism, student misbehaviors decreased. Conversely, when teacher dress decreased in professionalism, student misbehaviors increased.

The fourth research question sought to probe the relationship between student perceptions of TA dress and student ratings of instruction (SRIs). A significant positive correlation ($r=.51$, $p=.0001$) was found, indicating a strong relationship between these variables.

Analysis of variance procedures were used to further probe research questions 1 through 4. Student ratings of instructor dress professionalism were divided into low, moderate, and high categorizations using standard deviation separations. The overall mean for TA professional dress was 35.71 and the standard deviation was 8.67. Three categories of TA dress were established by a standard deviation split. Scores equal to or lower than one standard deviation below the mean were classified as low

professional dress ($N = 41$); scores between one standard deviation below the mean and on or below one standard deviation above the mean were classified as moderate professional dress ($N = 174$); and scores above one standard deviation above the mean were classified as high professional dress ($N = 45$). For student affective learning, analysis of variance indicated significant differences between low, moderate, and high TA dress categories ($F=[2/259] 21.06, p=.0001, R^2=.14$). Tukey's studentized range test revealed significant differences in affective learning between all three TA dress categories. Specifically, TAs that were high in professional dress had students who reported higher affective learning than TAs with moderate or low professional dress levels. Similarly, TAs with a moderate level of professional dress had students who reported higher affective learning than TAs in the low professional dress category. The effects of TA dress were also significant for student cognitive learning ($F=[2/269] 6.95, p=.001, R^2=.05$). Tukey's studentized range test revealed that student cognitive learning was significantly higher with high professional dress TAs than for TAs in the low dress categories.

ANOVA results for student ratings of instruction across levels of TA dress were also significant ($F=[2/267] 26.49, p=.0001, R^2=.17$). Tukey's studentized range test indicated significant differences between all three professional dress conditions, such that ratings of instruction for high professional dress TAs were significantly higher than instructional ratings for TAs with moderate or low professional dress. Similarly, ratings of instruction (SRIs) for TAs with moderate professional dress were significantly higher than ratings of instruction for TAs with low professional dress. ANOVA results for likelihood of student misbehavior across levels of TA dress were significant as well ($F=[2/269] 4.43, p=.01, R^2=.03$). Tukey's studentized range test indicated a difference between TAs with high professional dress and TAs with low professional dress, such that student misbehavior likelihoods were significantly higher for low professional dress TAs than for high professional dress TAs.

Research question five probed to find if significant differences exist between TAs and faculty on the relationships of instructor dress with student affective learning, student cognitive learning, student likelihood for misbehaviors, and student ratings of instruction. Correlation values between instructor attire and the student variables were obtained for faculty instructors. Correlation values were significant for faculty dress and student affective learning ($r=.54, p=.0001$), cognitive learning ($r=.52, p=.0001$), and student ratings of instruction ($r=.50, p=.0001$). The correlation between faculty dress and likelihood of student misbehaviors was not significant.

TABLE 1

Correlations between Ratings of Instructor Professional Dress and Student Affective Learning, Student Cognitive Learning, Likelihood of Misbehavior, and Student Ratings of Instruction

	TA Dress		Faculty Dress	
	r	p	r	p
Affect	.50	.0001	.54	.0001
Cognitive	.36	.0001	.52	.0001
Misbehave	-.19	.001	-.05	ns
SRI	.51	.0001	.50	.0001

Then, Fisher's r to z transformation procedure was used to test for differences between GTA correlation values and faculty correlation values. Though faculty correlation values for affective learning, cognitive learning, and SRIs were larger, none of these correlations were significantly different from TA correlations. Follow up analyses were done to determine if student reports of cognitive and affective learning, likelihood of misbehaviors, and ratings of instruction were significantly different by type of instructor (i.e., GTA and faculty instructors). ANOVA results for affective learning and likelihood of misbehavior by instructor type were not significant. ANOVA results for cognitive learning were significant ($F=[1/348]$ 12.32, $p=.0005$, $R^2=.03$), indicating that students reported significantly higher cognitive learning in classes taught by faculty than they did in classes taught by GTAs. ANOVA results for student rating of instructor were significant ($F=[1/346]$ 6.14, $p=.01$, $R^2=.02$), such that students rated faculty instructors significantly higher than they rated GTAs.

DISCUSSION

Though it would not be appropriate to argue causality, results from this study do indicate significant relationships between perceptions of TA attire and student affective and cognitive learning. This suggests that within reason, TAs should dress more professionally when they are in the role of instructor. In light of study results, elevated TA attire levels create a positive, professional impression on students that is reflected in student attitudes toward the course, the instructor, the content, etc. Such an impression is logical. The findings from this study align with the general literature on attire that point to the positive influence/impressions associated with professional dress. Regarding student affect, it is reasonable to consider that professional TA dress is seen by students as a sign that the TA is serious about his/her role as teacher. Professional TA dress may convey a message to the student that the TA regards the class as an important event where important concepts are discussed and important activities are provided. Because of this, the TA dresses like an individual would to attend an important event. If the classroom "event" is seen as important, particularly by the instructor, it is likely that students will respond by opening themselves up to learn and by being diligent in the completion of class assignments/activities. This student behavior would, in turn, lead to higher levels of affective and cognitive learning. Conversely, it is logical that if the TA dressed toward the casual or sloppy end of the attire continuum, the perceived TA attitude toward teaching, content, students, etc. might promote student behavioral responses that would lead to lower levels of affective and cognitive learning.

Study results regarding the third research question indicated that GTAs who are perceived to dress more professionally are less likely to encounter student misbehaviors. Conversely, the likelihood of student misbehavior is significantly higher when the GTA is dressed less professionally. This finding suggests that more professional TA dress creates higher levels of student respect for the instructor and the class in general. Professionally dressed TAs are ascribed more credibility, authority, and status by students. A healthy teacher-student distance is established and the students see the TA as an instructional leader. As a consequence of this, the students are more likely to stay on task, less likely to engage in disruptive behaviors, and more likely to move in the instructional directions the TA is facilitating. An additional explanation of the relationship of professional TA attire with lower levels of student misbehaviors may lie in the area of student affect. It is likely that students feel more

positive toward the instructor and the class when the TA instructor is dressed more professionally. Though affect is fostered by more variables than mere attire alone, general attire research reflects a positive bias toward individuals who are dressed nicely. Positive student affect toward the TA instructor would likely lead to less student misbehaviors. The converse of this would be true as well.

Notably, arguments questioning professional instructor dress suggest that the difference between instructor attire and student attire will create too much teacher-student distance. Additionally it is feared that the professional or overly formal instructor attire will make the TA unapproachable, unimmediate, etc. Results from the current study, however, seem to suggest that professional TA dress does not do this in general. Moreover, it may be that professional TA dress actually increases rather than decreases the social influence potential for the TA, particularly in the area of referent power. If great teacher-student distance or unapproachability were fostered by more professional TA dress, one would expect a significant negative relationship between TA attire and student learning. Instead, study results indicate that more professional levels of TA dress are associated with higher student affective and cognitive learning. If too much teacher-student distance exists, it is likely that other variables lead to this much more than does professional levels of attire.

Finally, results from this study indicate that student ratings of instruction will be higher for TAs who are perceived to dress more professionally. This finding also aligns with general attire literature that posits the favorable effects of professional attire. Students expect for instructors to be competent, professional, caring, and knowledgeable in the subject. They expect for the teacher to be an instructional leader, even more than they expect the teacher to be their buddy. Students are paying for the course and thus expect a quality product or experience. Professional TA dress seems to contribute to and foster impressions of the TA that are commensurate with these student expectations. Thus, when these expectations are met, students feel more satisfied with the instructor and the instructional product. Additionally, it may be that students perceive professionally dressed TAs as more competent or credible and thus rate them and the course more favorably. This is not to say that casually dressed instructors will be rated poorly, but does highlight the trend that more professionally dressed TAs will receive higher student ratings.

Limitations of the study certainly include that data were gathered from one university campus in one area of the country. A data pool such as this obviously has limitations in areas of demographic and cultural diversity. Conceptually, it also should be noted that the idea of professionalism is not limited to instructor attire, but rather that it includes a broad array of instructor behavioral patterns and attitudes. It is likely that results from this study reflect the influence of these other variables as well. Still, the role and correlates of GTA attire in the classroom are significant. Some might point to the use of "perceptions" of GTA professional attire as a limitation for the study. This indeed could be argued logically; however, the use of perceptions may actually be an advantage methodologically. Classifying attire as "sloppy," "casual," and "formal" poses some problems. Though it is fairly easy to distinguish the extremes of the clothing continuum, it is a bit more difficult, for example, to determine what types of attire can be categorized as "casual" clothing. "Casual" attire can be seen as "dressing down" and as "dressing up." Khaki slacks can be seen as casual or as more formal, depending on the situation and the evaluator. Because individuals perceive and act on their perceptions, it is advantageous methodologically to allow study subjects/respondents

to determine perceptually what is informal, casual, and formal GTA attire.

Results from this study reveal an interesting and definite trend. The influence of instructor attire in the classroom seems to parallel to a degree the influence of attire found in general attire literature. Professional attire appears to promote favorable impressions and elicit desirable results. Instructor attire is but one variable affecting student learning, likelihood of misbehavior, and ratings of instruction. Admittedly, attire may not be the most important instructor factor influencing these classroom variables, but this study does indicate that it is a significant factor with a significant influence. TAs often teach against uphill challenges. It is logical that they would avail themselves of every technique, instructional principle, advantage, and situational control that might heighten the quality of their teaching and the overall success of the class. The way students perceive TAs or any instructor is critical because students will act and respond based on their perceptions. Future research should continue to probe the influences of attire and other nonverbal influences in the classroom. More knowledge is needed on how, for instance, nonverbal communication influences the delicate balance between teacher-student immediacy and appropriate teacher-student distance. Additional research on the role of nonverbal communication in the classroom will provide valuable instructional insights for TAs and for university faculty as well.

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