

Fashion in the Classroom III: Effects of Instructor Attire and Immediacy in Natural Classroom Interactions

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This is the third of three studies using complementary designs to investigate the effects of teacher attire on student perceptions of instructors and instruction in contemporary college classrooms. In line with Studies One and Two, modest effects of attire on perceptions of extroversion and competence were found; however, previous conclusions that instructor attire has little meaningful, predictable effect on ratings of attributes related to either approachability or credibility were reinforced. Student judgements of such attributes were influenced far more by teacher use of immediacy behaviors than by attire. In particular, positive effects resulting from teachers' choice of formal professional attire were not supported.

This is the final study in a three-part series designed to investigate the implications of instructor attire in the contemporary college classroom. Interest in this topic was sparked by collegial conversations regarding advice for new teaching assistants: What can they do to enhance credibility, approachability, and teacher evaluations? Does what they wear make a difference?

KEY CONCEPTS: clothing, immediacy, instructional communication, nonverbal communication, perceptions of teachers

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Teachers are frequently advised to dress "professionally" and to be particularly attentive to impressions made in the first weeks of class. These recommendations are rooted in research. Goffman (1959) considers clothing an

important aspect of what he calls *personal front*, one of the forms of expressive equipment that assist a performer in defining the expectancies of an audience. Molloy (1975, 1977) suggests that clothing is a primary impression management tool. Hickson and Stacks (1993) concur that even if an instructor's dress is not selected with intent to communicate, its interpretation as a function of personal choice and its decoding as having meaning give it communicative relevance. Molloy (1988), Raiscot (1986), and others suggest that clothing especially affects four kinds of judgements: credibility, likability, interpersonal attractiveness, and dominance. Of these, credibility and likability have been identified as the two most important image dimensions of first impression judgements based on attire (DeMeuse, 1987; Schlenker, 1980, 1985; Tedeschi & Norman, 1985).

On the whole, studies of person perceptions related to dress consistently suggest three conclusions: (1) clothing does affect observer perceptions, especially "cool" perceptions such as wearer knowledge, educational background, preparation or poise, level of sophistication, and competence (e.g., Bassett, 1979; Bickman, 1974; Harris, et al., 1983; Lefkowitz, Blake, & Mouton, 1955; Miller & Rowald, 1980); (2) clothing that enhances "cool" perceptions may decrease "warm" judgements such as interpersonal attractiveness, trustworthiness, sociability, likability, and enthusiasm (e.g., Leathers, 1992; Raiscot, 1983; Smith & Malandro, 1985); and (3) females appear to be more responsive to clothing cues than are males (e.g., Kuehne & Creekmore, 1971; Miller & Rowald, 1980; Solomon & Schloper, 1982).

Rollman's (1980) study of student responses to instructor attire drew conclusions in line with these general findings. He showed 50 students three photographs of the same male teacher and the same female teacher in casual (jeans, sport shirt, sneakers), moderately formal (casual slacks/skirt, turtleneck, jacket), and formal (classic business attire) dress. Photos were rated using ten adjectives: fair, sympathetic, knowledgeable, enthusiastic, friendly, flexible, clear, organized, stimulating, and well-prepared. Teachers dressed formally were seen as more organized, knowledgeable, and better prepared; those dressed informally were seen as more friendly, flexible, sympathetic, fair, and enthusiastic than the other modes of dress. Males were rated as most stimulating in moderately formal attire, and both males and females scored highest on perceived clarity in the moderately formal condition.

Despite the consensus in findings across existing "dress for success" research, our ability to generalize conclusions to making recommendations for instructor attire is compromised. Most of this research has analyzed subject responses to photographs rather than to actual people interacting in context. Equally important is that most of it is 15 or more years old. Besides Rollman's study, surprisingly little of it has focused specifically on effects of attire in the classroom, as opposed to a business, social, or compliance-seeking context.

Fashion changes over time, as do attire rules and expectations. Ratings of photographs of a model sporting various clothing options provide only one cue from which to infer wearer characteristics. Teacher-student interactions provide multiple cues that occur in an incentive environment. Marsh and Ware's (1982) reanalyses of the well-known Dr. Fox studies, in which it was concluded that lecturer expressiveness overrides the inclusion of meaningful content in "seducing" students to give favorable evaluations, identified student evaluation factors that were differentially affected by the experimental manipulation. In the condition most like the university classroom, where students were given incentives to do well on achievement tests that followed the

lectures, the Dr. Fox halo effect was not supported. In a performance incentive context, the expressiveness manipulation affected only ratings of instructor enthusiasm. Further, although this was not true in Dr. Fox designs without the performance incentive, the content coverage manipulation significantly affected judgements of instructor knowledge and organization/clarity (Marsh & Ware, 1997).

The first study in the present series (Morris, Gorham, Cohen, & Huffman, 1996) was designed to examine effects of instructor attire in a contemporary, live classroom context. The experiment tested the effects of three dress conditions formal professional, casual professional, and casual¹ worn by graduate assistants teaching the same lesson as guest lecturers in different sections of a multiple-section introductory university course. Results indicated modest effects of instructor attire on student perceptions. "Warm" attributes (sociability, extroversion, interesting presentation of material) earned the highest ratings in the casual condition, with the greatest effect on judgements of extroversion. Formal dress was associated only with higher competence ratings for female students rating female instructors; it had no effect on other "cool" perceptions of instructor composure or knowledge.

These findings were not completely out of line with those of previous studies, but raised serious questions about the notion of "power dressing" in the classroom. Indeed, a common assumption has been that beginning teachers particularly need to bolster perceptions of competence, credibility, and knowledge and that dressing up will help. This was not the case. Furthermore, dressing down operationalized in the study as *very* casual faded jeans and t-shirt attire not only did not hurt credibility, but also resulted in the highest approachability ratings.

A second study (Gorham, Cohen, & Morris, 1997) was designed as a replication of the first and also added a second independent variable, instructor immediacy. Students in Study One reported teacher use of immediacy as a manipulation check, to assure that only dress and not manner of presentation had varied across conditions. It was noted, however, that each instructor had been highly immediate. Because teacher immediacy has been shown to influence students' affective responses,² it was reasonable to question whether the high immediacy across presentations in the first study might have overridden dress effects in influencing student perceptions and to speculate that perceptions of less immediate instructors might vary more due to dress. Following the arousal-attention model that has been used to explain effects of immediacy on learning (Kelley & Gorham, 1988), the second study also explored whether instructor attire, alone or in combination with immediacy, affected learning outcomes.

The resulting two (immediacy conditions) by three (attire conditions) experimental study again indicated minimal effects of attire on person perceptions in the live interaction classroom context. Influence of attire was largely limited to ratings of instructor extroversion, with casual dress rated as the most extroverted and those deviating in either direction from the casual-professional teaching assistant norm rated higher on extroversion than those conforming to the norm. However, high immediacy instructors were rated significantly more favorably than low immediacy instructors on measures of extroversion, composure, character, competence, and learning. There was no statistically significant interaction between attire and immediacy; i.e., there was no indication that strategic choice of attire bolsters student ratings of non-immediate instructors, or that "non professional" attire hurts judgements of immediate instructors.

Roach (1997) recently investigated similar relationships in a study also designed to examine the effects of instructor attire in the live classroom context. Following several weeks of continuing interaction with teachers in natural classroom settings, he asked students to rate the attire of their instructors using seven bipolar descriptors (informal-formal, wrinkled-pressed, inappropriate-appropriate, dirty-clean, professional-nonprofessional, neat-sloppy, and fashionable-unfashionable) and to complete instructor perception and learning measures. A "professional dress score" was calculated by summing responses to the attire descriptors and a standard deviation split used to categorize teachers into "professional dress categories." Significant, positive correlations between instructor dress and student judgements of the teacher and the course were found. Teachers with "high professional dress" garnered higher ratings than those with "moderate professional dress," who were evaluated more favorably than those with "low professional dress."

An important difference between the design of Roach's study and that used in the studies in this series is categorization of attire. The present studies have manipulated the style of instructor dress; Roach asked students to evaluate what their instructors wore. These are conceptually different means of operationalizing the attire variable, which may account for the radical difference in findings. However, the narrow focus of the first studies in this series may have failed to capture effects that occur over time with a broader cross-section of instructors.

Studies One and Two used a tightly controlled experimental design which maximized control of extraneous variables but also limited ability to generalize findings beyond presentation of single, well-organized lectures by graduate teaching assistants. Further, similar to most research on judgements associated with attire, the studies were limited to first impression effects. The present study was designed to investigate attire/immediacy effects across a broader range of teachers, in natural teaching situations, at both the time of the first class meeting and the midpoint of the semester. Hoult (1954) cautioned that effects of clothing manipulations are affected by subjects' knowing research confederates, and are strongest in making first impression judgements. In actual classrooms, students come to know their teachers over the course of many weeks. We might plausibly speculate that dress/ immediacy effects are minimized as students accumulate more evidence upon which to base their judgements of teachers. It is also plausible to speculate that first impression judgements create expectancies that continue to influence judgements over time. Given the findings of Studies One and Two, it was predicted that effects of attire on student perceptions of instructor credibility and likability would be modest, with greater effects for immediacy. However, the possibility that Roach's findings are not an artifact of his approach to rating rather than describing attire conditions was acknowledged.

- H1: College students' perceptions of instructors are influenced by instructor immediacy and, to a lesser degree, by instructor attire at both the initial meeting and at midterm.
- H2: College students' perceptions of learning are influenced by instructor immediacy and, to a lesser degree, by instructor attire at both the initial meeting and at midterm.

Leathers (1992) notes that there are three primary principles of attribution that

affect impression formation: we are influenced the most by cues that are the most obvious; we put more weight on negative cues than on positive cues; and we make judgements based on the assumption that others are like us. Previous studies in this series presented students with two obvious cues, appearance (attire) and behavior (immediacy). Of the two, behavior was clearly more important in influencing rater judgements. Attire much more casual than that usually worn by instructors in the classroom was not perceived as a negative cue, but lack of immediacy was.

The third principle of attribution concerns homophily, the degree to which two people perceive themselves as similar to one another. Homophily has been found to be related to voluntary exposure to communication and the ability to influence. Hensley (1981) applied a "similarity hypothesis" in interpreting results of a study in which well-dressed female confederates were more successful in receiving aid (a dime for a telephone call) in an airport, among similarly dressed travelers, while poorly dressed female confederates were more successful at the same task in a bus station, also among similarly dressed travelers. "Optimal homophily" for classroom or persuasive contexts has been defined as receivers' perceptions that a communicator is very similar to them in most ways, but somewhat more competent on the topic in question (McCroskey, Hamilton, & Weiner, 1974).

In Study One, perceptions of homophily accounted for a small amount of variance in instructor ratings, but there was no significant effect of dress condition on ratings of homophily. In Study Two, neither the instructor's choice of attire nor the gender of the rater directly influenced perceptions of similarity. High immediacy was associated with optimal homophily perceived similarity in attitude but *dissimilarity* in background that has appropriately prepared the instructor for her or his role as teacher. Both studies were limited to first impression judgements; however, no research was found to support a prediction of differential findings following continued interaction.

- H3: College students' perceptions of homophily are influenced by instructor immediacy, but are not influenced by instructor attire, at both the initial meeting and at midterm.

Both of the previous studies used graduate teaching assistants, who have greater demographic similarity to undergraduate students than do most professors, as experimental confederates. It is possible that expectancy effects contribute differently to effects of dress on teacher perceptions for other instructors. The design of the current study allowed investigation of that possibility.

- RQ1: To what degree does instructor age interact with attire or gender effects?

METHOD

Participants in this study were 141 undergraduate students (69 male, 72 female) enrolled in a general education communication course. During the first class meeting, they were asked to complete a questionnaire following their first class period that semester "with an instructor you have not had before and do not know before beginning the class." To facilitate matching of first day and mid-term data, forms included both student code numbers and a request to enter the number/title of the

course being referenced. Courses referenced reflected a representative cross section of upper and lower division offerings from across the University (107 courses; 132 sections). Ninety-two surveys referenced male instructors, 49 female instructors; 25 of the instructors were categorized as in their 20s, 88 as in their 30s or 40s, and 28 age 50 or older.

Instructor attire was assessed via students' response to the following question:

Please check the category that best describes what this teacher was wearing in class. If you are unsure how to categorize the teacher's dress using the descriptions provided, explain what he/she was wearing at the bottom of the page.

_____ (1) Formal Professional dress. This is the attire that would typically be recommended for a job interview or be seen in a corporate setting for example, a conservative suit and tie with dress shoes for males; a conservative jacketed business suit or dress with dressy hose and shoes for females.

_____ (2) Casual Professional dress. This is the attire you might see in the corporate world on a "casual Friday" for example, khaki slacks, a casual button front shirt and loafers or deck shoes for males; a skirt or slacks with a dressy blouse/sweater and low heeled shoes for females. If either males or females wear a jacket, it would be classified as casual professional if it does not match the slacks/skirt or is of a casual cut and/or fabric. Jeans might fit in this category if they are "dressy" jeans and worn with other clothing that give the overall outfit a polished edge.

_____ (3) Casual dress. This is attire more like students frequently wear to class. This might be casual jeans, a long skirt in a casual fabric or print, athletic shoes and socks or other footwear that seems chosen more for comfort than style, a flannel shirt, polo shirt, t-shirt, or casual sweater. This is the kind of attire you would not normally associate with the corporate setting.

These descriptions were based on attire conditions in the previous two experimental studies. To minimize the potential of response bias introduced by focusing awareness on the instructor's attire, the question was placed at the end of the survey.

Teacher immediacy was measured via student responses to the Perceived Nonverbal Immediacy Scale proposed by McCroskey, Richmond, Sallinen, Fayer, and Barraclough (1995). This ten-item measure is a version of similar scales that have been used successfully across a substantial body of research on teacher immediacy, cognitive learning, and affective orientations in college classrooms.² Instructor use of each behavior is rated on a 0-4 scale (0 = never, 4 = very often). The items were: gestures while talking to class, looks at class while talking, smiles at the class while talking, moves around the classroom while teaching, uses a variety of vocal expressions when talking to the class, uses a monotone/dull voice when talking to class, has a very tense body position, looks at the board or notes when talking to class, and frowns at the class while talking. The last four items are presumed to be nonimmediate behaviors and were reflected in scoring. Alpha reliability was .858 at the first class period and .860 at the midterm date.

Perceptions of the instructor were assessed using an approach developed by

McCroskey, Jensen, & Valencia (1973; see also McCroskey, Hamilton, & Weiner, 1974; Rogers & Shoemaker, 1971). Five dimensions related to source perception (competence, character, sociability, composure, and extroversion) were measured, each using a three-item set with seven-point bipolar descriptors.³ Two dimensions of homophily (McCroskey, Richmond, and Daly, 1975; McCroskey & Richmond, 1996) were similarly measured, perceived similarity in *attitude* (behaves like me/doesn't behave like me, similar to me/different from me, like me/unlike me) and perceived similarity in *background* (culturally similar to/culturally different from me, from a social class similar to/different from mine, status like/different from mine). These items were placed first on the survey form. In this study, alpha reliability for these scales were competence T1 .818, T2 .872; character T1 .813, T2 .748; sociability T1 .795, T2 .803; composure T1 .758, T2 .758; extroversion T1 .717, T2 .786; attitude homophily T1 .801, T2 .830; background homophily T1 .583, T2 .528.

Perceived learning was measured using a "learning loss" approach (Richmond, Gorham, & McCroskey, 1987; Richmond, McCroskey, Kearney, & Plax, 1987; Gorham, 1988). Students were asked to respond to two questions, *Based upon your first impressions of the instructor, how much do you think you will learn in this class* ("0" means you learned nothing and "9" means you learned more than in any other class) and *On the same scale of 0-9, how much do you think you could learn in this class if you had the ideal instructor?* The learning loss score, which adjusts for influences of the lecture topic on perceived learning, was calculated by subtracting the response to the first question from the response to the second question.

At midterm (T2) students were asked to complete the same questionnaire, with two modifications: (1) The teacher attire question requested that students indicate "the percentage of time this instructor wears each type of dress" and (2) the first perceived learning question was reworded to read *Based on your impressions of the instructor, at this point in the semester, how much do you feel you are learning in this class* ("0" means you learned nothing and "9" means you learned more than in any other class).

At T2, instructors were assigned to a single attire condition if students reported their choosing that attire 75% or more of the time. Ninety-eight of the 141 instructors were classified as choosing predominately formal professional (FP), casual professional (CP), or casual (C) dress. The others were classified in two mixed dress categories (FP+CP, CP+C), in which a combination of two dress styles was selected 75% or more of the time. There were two missing values and three instructors who could not be classified using the above schema for this item at T2. At T1, 57% of instructors (55% of females, 58% of males) wore casual professional, 23% (29% F, 20% M) formal professional, and 21% (16% F, 23% M) casual attire. For teachers who met the 75% rule for classification in a single attire category at T2, the style of clothing worn the first day of class was almost without exception that teacher's usual dress (i.e., attire classification at T1 and T2 were the same).

The statistical design for data analyses was multiple linear regression models comprising the categorical variables of Instructor Attire (FP, CP, C), Instructor Gender (M, F), and Subject Gender (M, F), and the continuous variable Instructor Immediacy score. A second model was performed replacing the Instructor Gender variable with Instructor Age (20s, 30s & 40s, 50+). In analyzing responses at Time 2 with these models, the corresponding response at Time 1 was included in the model as a covariate. This procedure effectively yields a residualized change score analysis (Cronback & Furby, 1970). Type III sums of squares were estimated because these do not depend

upon the unequal cell sizes in the regression models (Milliken, 1984; Searle, 1987). However, cells with fewer than 5 observations were not included in any subsequent post hoc follow-up tests on significant source effects. Level of significance was .05. The eta-squared statistic (Cohen, 1977) was calculated to estimate the proportion of total variance accounted for by any given design effect and its relative importance in the study.

RESULTS

Hypothesis One predicted that students' perceptions of their instructors would be influenced by instructor immediacy, and to a lesser degree by instructor attire, at both the initial class meeting and at midterm. Tests of between subjects effects for instructor immediacy at T1 and T2 on the instructor perception scales are reported in Table 1, together with the variance in dependent variables at T2 attributable to first impression (T1) ratings of those variables. Table 1 makes it evident that immediacy ratings at T1 were significantly related to all of the instructor perception variables, with eta-square values ranging from .11 to .39 and a mean η^2 of .25.

At the first class meeting (T1), there was a significant difference among instructor attire conditions only for composure $F(2,128) = 4.33, p < .02, \eta^2 = .06$. The mean rating for composure was significantly ($p < .004$) higher for formal professional ($M = 5.77, sd = .89$) than for casual professional ($M = 4.95, sd = 1.22$) attire. The mean for casual attire ($M = 5.20, sd = 1.46$) did not differ significantly from either of the other styles of dress.

At midterm (T2) there was a significant difference among instructor attire conditions only for competence $F(1,82) = 3.35, p < .04, \eta^2 = .08$. The mean rating on competence for the casual attire condition ($M = 5.32, sd = 1.68$) was significantly lower than the casual professional condition ($M = 5.86, sd = 1.14, p < .01$) and the formal professional condition ($M = 5.99, sd = 1.26, p < .04$).

Hypothesis One was supported. As was the case in the previous studies in this series, instructor immediacy influenced perception ratings substantially more than did instructor dress. Perception ratings at T1 accounted for a meaningful portion of their variance at T2. The correlation of immediacy at T1 and T2 was .828 ($p < .0001$).

Hypothesis Two predicted that perceptions of learning would be influenced by instructor immediacy, and to a lesser degree by instructor attire, at both the initial meeting and at midterm. Learning loss was significantly associated with teacher immediacy at both T1, $F(1,128) = 5.29, p < .023, \eta^2 = .03$, and T2, $F(1,128) = 9.42, p < .003, \eta^2 = .06$. Tests of between subjects effects yielded no significant effects of attire on learning loss at T1. There was a significant effect of attire on learning loss at T2, $F(2,79) = 3.91, p < .02, \eta^2 = .09$, with the mean rating for learning loss significantly lower for casual attire ($M = 0.44, sd = 2.90$) than for casual professional ($M = 1.53, sd = 1.79, p < .01$) and formal professional ($M = 1.09, sd = 1.78, p < .02$) attire. Thus, Hypothesis Two was only partially supported.

Hypothesis Three predicted that students' perceptions of homophily would be influenced by instructor immediacy, but would not be influenced by instructor attire, at both the initial meeting and at midterm. Immediacy was substantially associated with perceptions of attitude homophily at T1, $F(1,128) = 19.58, p < .0001, \eta^2 = .12$. It did not influence first impression perceptions of background homophily. No significant attire effects were found at T1. No significant effects for immediacy or attire were found at T2. Hypothesis Three was supported at T1 but not T2.

The research question probed the influence of instructor age on attire/gender

TABLE 1
Tests of Between Subjects Effects of Immediacy at T1 and T2 on the Dependent Variables and of T1-T2 Relationships Among the Dependent Variables

	Dependent Variable	<i>F</i> (1,128)	<i>p</i>	η^2
Immediacy T1	Sociability T1	100.36	.0001	.39
	Composure T1	19.42	.0001	.11
	Character T1	48.68	.0001	.24
	Extroversion T1	33.20	.0001	.19
	Competence T1	45.82	.0001	.22
	Attitude Homophily T1	19.58	.0001	.12
	Background Homophily T	11.57	n.s.	----
	Learning Loss T1	5.29	.023	.03
	Dependent Variable	<i>F</i> (1,82)	<i>p</i>	η^2
Immediacy T2	Sociability T2	9.09	.003	.06
	Composure T2	19.91	.0001	.14
	Character T2	6.96	.010	.03
	Extroversion T2	23.10	.0001	.12
	Competence T2	2.77	n.s.	----
	Attitude Homophily T2	.02	n.s.	----
	Background Homophily T2	.003	n.s.	----
	Learning Loss T2	9.42	.003	.06
	Dependent Variable	<i>F</i> (1,82)	<i>p</i>	η^2
Sociability T1	Sociability T2	6.41	.013	.04
Composure T1	Composure T2	8.18	.005	.06
Character T1	Character T2	39.80	.0001	.19
Extroversion T1	Extroversion T2	27.15	.0001	.14
Competence T1	Competence T2	29.79	.0001	.17
Attitude Homophily T1	Attitude Homophily T2	23.87	.0001	.18
Background Homophily T1	Background Homophily T2	42.72	.0001	.29
Learning Loss T1	Learning Loss T2	24.15	.0001	.14

effects. There were no significant instructor age by attire interactions at T1. At T2 there were significant instructor age by attire interactions for competence $F(4,79) = 5.28, p < .001, \eta^2 = .21$, extroversion $F(4,78) = 2.70, p < .04, \eta^2 = .12$ and learning loss $F(4,76) = 2.88, p < .03, \eta^2 = .13$. Means are reported in Tables 2 through 4. Given some small cell sizes, the findings related to age and attire should be regarded as tenuous. In the natural classroom setting, as opposed to previous experimental manipulations, most of the instructors in their 20s favored casual professional attire and few aged 50 or older chose casual clothing. In general, competence ratings increased with age while extroversion ratings decreased with age.

There was a significant main effect for instructor age on composure $F(2,124) = 3.15, p < .05, \eta^2 = .05$ at T1. Instructors in their 20's were, not surprisingly, rated as significantly less composed ($M = 4.57, sd = 1.26$) than those age 50 or older ($M = 5.61, sd = 1.03, p < .03$). There were significant student gender by instructor age interactions at T1 for sociability $F(2,124) = 3.53, p < .04, \eta^2 = .05$ and competence $F(2,124) = 3.53, p < .04, \eta^2 = .05$. Means are reported in Tables 5 and 6.

At T2, there was a significant main effect for instructor age on competence

TABLE 2
Means for Competence: Instructor Age by Instructor Attire (T2)

Instructor Attire	Instructor Age		
	20s	30s-40s	50+
Formal Professional	*	5.98 (<i>sd</i> = 1.33, <i>n</i> = 22) ^b	6.15 (<i>sd</i> = 1.13, <i>n</i> = 11) ^{bd}
Casual Professional	5.79 (<i>sd</i> = 1.19, <i>n</i> = 11) ^a	5.96 (<i>sd</i> = 1.17, <i>n</i> = 25) ^c	5.85 (<i>sd</i> = 1.09, <i>n</i> = 11)
Casual	*	5.89 (<i>sd</i> = 1.02, <i>n</i> = 11) ^{acd}	*

Means with same superscript are significantly different

* Cells with fewer than 5 observations were not included in post hoc follow-up tests on significant source effects.

TABLE 3
Means for Extroversion: Instructor Age by Instructor Attire (T2)

Instructor Attire	Instructor Age		
	20s	30s-40s	50+
Formal Professional	*	5.45 (<i>sd</i> = 1.06, <i>n</i> = 22) ^{ad}	4.88 (<i>sd</i> = 1.27, <i>n</i> = 11) ^e
Casual Professional	5.64 (<i>sd</i> = 1.10, <i>n</i> = 11) ^{abc}	4.96 (<i>sd</i> = 1.54, <i>n</i> = 25) ^{bc}	5.55 (<i>sd</i> = 1.38, <i>n</i> = 11) ^e
Casual	*	4.80 (<i>sd</i> = 1.08, <i>n</i> = 10) ^{cdefg}	*

Means with same superscript are significantly different

* Cells with fewer than 5 observations were not included in post hoc follow-up tests on significant source effects.

TABLE 4
Means for Learning Loss: Instructor Age by Instructor Attire (T2)

Instructor Attire	Instructor Age		
	20s	30s-40s	50+
Formal Professional	*	1.23 (<i>sd</i> = 1.93, <i>n</i> = 22) ^{bc}	.73 (<i>sd</i> = 1.56, <i>n</i> = 11) ^d
Casual Professional	1.45 (<i>sd</i> = 1.69, <i>n</i> = 11) ^a	1.35 (<i>sd</i> = 1.67, <i>n</i> = 23) ^c	1.82 (<i>sd</i> = 2.14, <i>n</i> = 11) ^e
Casual	*	-.60 (<i>sd</i> = 2.88, <i>n</i> = 10) ^{abcde}	*

Means with same superscript are significantly different

* Cells with fewer than 5 observations were not included in post hoc follow-up tests on significant source effects.

The negative mean score for instructors in their 30s/40s who wore casual attire is the result of one student who rated learning with the target instructor higher than would be expected with "the ideal teacher," while the other subjects in this cell rated learning with the target instructor about equal to that expected with an ideal teacher. Although use of the learning loss scale has been validated across a number of studies, it is possible that this particular student completed the measure incorrectly, rating the teacher against "the norm" rather than against an ideal. Across subjects, learning loss was clearly rated lower for teachers in their 30s/40s who dressed casually than those who dressed more professionally.

TABLE 5
Means for Sociability: Instructor Age by Student Gender (T1)

Instructor Age	20s	30s/40s	50+
Student Gender			
male	5.61 (<i>sd</i> = 1.17, <i>n</i> = 12)	5.28 (<i>sd</i> = 1.21, <i>n</i> = 39)	5.41 (<i>sd</i> = 1.29, <i>n</i> = 18)
female	5.92 (<i>sd</i> = 0.92, <i>n</i> = 13)	5.76 (<i>sd</i> = 1.20, <i>n</i> = 49) ^a	6.20 (<i>sd</i> = 1.12, <i>n</i> = 10) ^a

Means with same superscript are significantly different

TABLE 6
Means for Competence: Instructor Age by Student Gender (T1)

Instructor Age	20s	30s/40s	50+
Student Gender			
male	5.50 (<i>sd</i> = 1.77, <i>n</i> = 12)	5.45 (<i>sd</i> = 1.32, <i>n</i> = 39) ^b	5.85 (<i>sd</i> = 0.93, <i>n</i> = 18)
female	5.44 (<i>sd</i> = 1.39, <i>n</i> = 13) ^a	6.10 (<i>sd</i> = 1.13, <i>n</i> = 49)	6.63 (<i>sd</i> = 0.62, <i>n</i> = 10) ^{ab}

Means with same superscript are significantly different

$F(2,79) = 10.44, p < .0001, \eta^2 = .21$. Instructors in their 20's were, as might be expected, rated as significantly less competent ($M = 5.02, sd = 1.69$) than those in their 30s/40s ($M = 5.96, sd = 1.19, p < .05$) and those age 50 or older ($M = 6.06, sd = 1.07, p < .0001$). Competence ratings for instructors in their 30s/40s also differed significantly ($p < .001$) from ratings for instructors aged 50 and older. There were significant subject gender by instructor age interactions for competence $F(2,79) = 5.29, p < .01, \eta^2 = .19$, extroversion $F(2,78) = 4.62, p < .02, \eta^2 = .11$ and learning loss $F(2,76) = 4.23, p < .02, \eta^2 = .10$ (Tables 7 through 9). No significant attire by age interactions were found.

TABLE 7
Means for Competence: Instructor Age by Student Gender (T2)

Instructor Age	20s	30s/40s	50+
Student Gender			
male	4.63 (<i>sd</i> = 1.78, <i>n</i> = 8) ^a	5.65 (<i>sd</i> = 1.22, <i>n</i> = 25) ^{bf}	6.10 (<i>sd</i> = .94, <i>n</i> = 13) ^{adefgh}
female	5.42 (<i>sd</i> = 1.62, <i>n</i> = 8) ^{bode}	6.19 (<i>sd</i> = 1.12, <i>n</i> = 33) ^{cg}	6.00 (<i>sd</i> = 1.25, <i>n</i> = 11) ^{eh}

Means with same superscript are significantly different

TABLE 8
Means for Extroversion: Instructor Age by Student Gender (T2)

Instructor Age	20s	30s/40s	50+
Student Gender			
male	4.83 (<i>sd</i> = 1.66, <i>n</i> = 8) ^{abc}	4.97 (<i>sd</i> = 1.48, <i>n</i> = 25) ^{ac}	5.64 (<i>sd</i> = .93, <i>n</i> = 13) ^{defg}
female	5.54 (<i>sd</i> = .89, <i>n</i> = 8) ^d	5.24 (<i>sd</i> = 1.16, <i>n</i> = 32) ^{bf}	4.73 (<i>sd</i> = 1.53, <i>n</i> = 11) ^{cg}

Means with same superscript are significantly different

TABLE 9
Means for Learning Loss: Instructor Age by Student Gender (T2)

Instructor Age	20s	30s/40s	50+
Student Gender			
male	2.63 (<i>sd</i> = 1.77, <i>n</i> = 8) ^{ab}	0.79 (<i>sd</i> = 2.69, <i>n</i> = 24) ^{acde}	0.85 (<i>sd</i> = 2.19, <i>n</i> = 13) ^{bfg}
female	1.13 (<i>sd</i> = 1.64, <i>n</i> = 8) ^c	1.06 (<i>sd</i> = 1.59, <i>n</i> = 31) ^{df}	1.64 (<i>sd</i> = 1.29, <i>n</i> = 11) ^{eg}

Means with same superscript are significantly different

Much of the research on clothing and person perceptions concludes that females are more responsive to clothing cues than are males. The two previous studies in this series found few such effects. In Study One, formal dress was associated with higher competence ratings for female students rating female instructors. In Study Two, male students responded more favorably to instructors' casual dress and female students to casual-professional dress in judging attitude homophily. Supplemental analyses of the present data were largely in line with this pattern. There was a significant student gender by instructor attire interaction effect on learning loss at T2 $F(2,79) = 3.90, p < .02, \eta^2 = .09$, although these findings indicated primarily that female students were more critical of learning outcomes (reporting more learning loss) than males, regardless of instructor attire. Both male and female students reported the least learning loss in classes where teachers chose casual attire. Means are reported in Table 10.

TABLE 10
Means for Learning Loss: Instructor Attire by Student Gender (T2)

Student Gender	Instructor Attire		
	Formal Professional	Casual Professional	Casual
Male	.54 (<i>sd</i> = 1.81, <i>n</i> = 13) ^a	1.68 (<i>sd</i> = 2.04, <i>n</i> = 25) ^c	.17 (<i>sd</i> = 4.71, <i>n</i> = 6) ^{abcde}
Female	1.43 (<i>sd</i> = 1.72, <i>n</i> = 21) ^b	1.33 (<i>sd</i> = 1.41, <i>n</i> = 18) ^d	.60 (<i>sd</i> = 1.26, <i>n</i> = 10) ^e

Means with same superscript are significantly different

There was a significant effect for student gender on perceptions of background homophily at T1, $F(1,128) = 6.29, p < .01, \eta^2 = .05$, with the mean rating for female students ($M = 4.48, sd = 1.22$) higher than that of male students ($M = 3.70, sd = 1.37$). In addition, the interaction of student gender by instructor gender was significantly related to learning loss $F(1,126) = 4.05, p = .05, \eta^2 = .03$ at T1. Post hoc tests did not reveal any significant differences among these means.

At T2, there was a significant main effect of student gender on learning loss $F(1,79) = 10.48, p < .002, \eta^2 = .12$, with male students reporting significantly less learning loss ($M = 1.13, sd = 2.46$) than female students ($M = 1.20, sd = 1.53$). Significant effects were also found for the interaction of instructor gender by student gender on competence $F(1,82) = 5.28, p < .02, \eta^2 = .06$, with male instructors rated by female students ($M = 6.25, sd = .96$) scoring significantly higher than female instructors rated by female students ($M = 5.48, sd = 1.61, p < .01$). Significant effects were found at T2 for the interaction of instructor attire by instructor gender on extroversion $F(2,81) = 3.81, p < .03, \eta^2 = .09$; however, significantly different cells comprising the interaction on extroversion could not be identified by post hoc analysis.

DISCUSSION

Results of the present study, in combination with the previous studies in this series, indicate the following conclusions.

Conclusion One

Contrary to studies of person perceptions related to dress in other, non-classroom contexts, choice of formal attire appears to have little effect on enhancing "cool" perceptions such as a teacher's competence, poise, or teaching expertise. The first study in this series (but not the second) found a modest effect of instructor dress on perceptions of *competence*, driven primarily by female students' higher competence ratings of female TAs who wore formal professional attire. The present study yielded a significant main effect of attire on competence at T2, with instructors who regularly dressed in very casual attire rated less competent than those who regularly chose either casual professional or formal professional attire. However, further analyses indicated that this effect was as likely driven by instructor age as by attire. Competence ratings increased with instructor age, and older teachers tended to dress less casually than younger teachers. The first impression (T1) effect of instructor age on ratings of competence was stronger for female students than for male students.

On the first day of class, teachers who dressed formally were rated higher on *composure* than those choosing casual professional attire; however, those dressed very casually were not rated as significantly more or less composed than those choosing either of the more professional attire alternatives. In line with the competence findings, perceptions of composure increased with instructor age, and older teachers tended to dress less casually than younger teachers. Effects of both attire and age on ratings of composure disappeared by midterm.

Attire did not influence students' perceptions of anticipated learning in the class (T1). By midterm (T2) *less* learning loss was, in fact, reported for teachers who dressed casually than for those who chose either casual professional or formal attire. Male students assumed significantly greater learning loss for teachers in their 20s than they did for older teachers, while female students were equally critical of learning outcomes regardless of instructor age.

Conclusion Two

Contrary to studies of person perceptions related to dress in other, non-classroom contexts, teachers' choice of attire appears to have minimal effect on "warm" judgements such as sociability, likability, and extroversion. Both of the previous studies in this series found modest effects of instructor dress on the "warm" judgement of teacher *extroversion*, with teaching assistants who deviated in either direction from the casual professional TA attire norm rated as more extroverted than those conforming to the norm, and those who dressed very casually rated highest in extroversion. The first study, but not the second, found a similar pattern for the influence of attire on judgements of instructor *sociability*.

In the present study, there were no main effects for attire on either extroversion or sociability on either the first day of class or later in the semester. At T1, a first impressions scenario that approximates the guest lecturer design of the previous studies, the youngest and oldest teachers were rated more sociable than those in their 30s/40s, and female students rated sociability higher than did male students, regardless of instructor attire.

By midterm, extroversion ratings for instructors aged 30 and older rose as attire became more formal. Without the experimental manipulation of the previous studies, very few of the younger teachers chose other than casual professional attire. Male students' ratings of extroversion increased with instructor age. Female students' ratings of extroversion decreased with instructor age.

Conclusion Three

In line with previous research, both the present data and those from the second study in this series provide compelling evidence of the effects of teacher immediacy on student perceptions of the instructor. Greater use of immediacy behaviors was highly associated with more positive perceptions of sociability, extroversion, character, competence, composure, and learning at T1. With the exception of competence, immediacy continued to enhance ratings of each of those perceptions through midterm (T2). These findings reinforce the conclusion drawn in Study Two: Students' judgements of attributes associated with both teachers' approachability and credibility are influenced far more by how teachers behave than by what they wear.

Variance accounted for by teacher immediacy on judgements of sociability, character, and competence decreased substantially from T1 to T2. This pattern is intuitively logical; those judgements are more likely to be influenced by a combination of teachers' nonverbal immediacy behaviors and verbal interaction as the semester progresses than would be judgements of composure, for which VAF remained stable from T1 to T2.

Conclusion Four

As was found in Study Two, more immediate teacher behavior was associated with a first impression (T1) perception of greater attitude homophily (the perception that teacher and student are intrinsically similar). Background homophily was not significantly related to immediacy, as had been found in Study Two. These results are probably associated with low reliability of the background homophily scale in the present data, but arguably reflect the broader range of teachers here in comparison to the previous experimental studies. In Studies One and Two, the instructors were teaching assistants who were demographically very similar to students in their classes. In the present study, teachers were diverse in age, education, and cultural background. Thus, observable behavior may have been less central to distinctions of background similarity. There was no relationship between instructor attire and ratings of homophily.

At T1, female students rated their instructors significantly higher than did male students on background homophily. It is plausible to speculate that females' perception that their teachers were too similar to themselves to have optimal subject expertise may be associated with female students' reports of greater learning loss at T2. Of related interest in the present study was the interaction of instructor gender and student gender on assessments of learning. Students tended to expect more optimal learning (less learning loss) with teachers of their own rather than the opposite gender. However, competence ratings were significantly higher for male instructors rated by female students than they were for female instructors rated by female students.

General Conclusions

This series of studies was not undertaken with intent or expectation of questioning

conventional wisdom regarding implications of instructors' choice of attire. The findings of Study One were initially suprising. However, given the triangulated results across three studies with complementary designs, there is reasonable confidence in their combined findings: There is little evidence that instructor attire has any meaningful, predictable effect on student perceptions of attributes related to either teachers' approachability or credibility. Students' judgements of such attributes are influenced far more by how teachers behave than by what they wear. In particular, positive effects resulting from teachers' choice of formal professional attire are not supported. Given results of studies using photographs and/or conducted in business, social, or compliance-seeking contexts, why doesn't "dress for success" translate to the contemporary college classroom?

Similar to the conclusions of Marsh and Ware's (1982) reanalyses of the Dr. Fox studies, the halo effect of cosmetic packaging appears not to be particularly influential in incentive contexts. For example, when students were given incentives to do well on a test following "Dr. Fox's" lecture, the expressiveness manipulation affected only ratings of instructor enthusiasm, the factor most logically related to the manipulation. In contrast, the content coverage manipulation significantly affected judgements of instructor knowledge and organization/clarity, the factors most logically related to that manipulation (Marsh & Ware, 1997).

In this series of fashion in the classroom studies, students interpreted various verbal and nonverbal cues in terms of their salience in a performance incentive context. This is not true of subjects asked to rate photographs of individuals wearing different styles of dress. It is not surprising that extroversion was the judgement most consistently affected by instructor attire, with teachers who dressed contrary to expectations rated as more bold and outgoing. This is the factor most logically related to the manipulation.

Roach's (1997) investigation of effects of attire on perceptions of college instructors and of learning was very similar in design to the study reported here, but drew very different conclusions. The salient difference in the two approaches appears to be the operationalization of the attire variable. Roach asked students to evaluate the attire of their instructors using a series of bipolar descriptors (informal-formal, wrinkled-pressed, inappropriate-appropriate, dirty-clean, professional-nonprofessional, neat-sloppy, and fashionable-unfashionable) that were combined to calculate a "professional dress score." A standard deviation split was used to categorize teachers into high, moderate, and low professional dress categories. High professional dress teachers were rated more favorably than those with moderate professional dress, who were evaluated more favorably than those with low professional dress.

The study reported here asked students to report what their teachers wore according to categories of dress drawn from previous studies of effects of attire on person perceptions. While it is likely that the informal/formal evaluation in Roach's measure would parallel the casual/casual professional/formal professional distinction in this study, it is not likely that the other evaluative descriptors would not likely be as neatly matched to a particular style of dress.

Roach concludes that more professional dress "creates higher levels of student respect for the instructor and the class in general" (p. 137), noting that his findings "parallel to a degree the influence of attire found in the general attire literature" (p. 139) and are thus "logical" (p. 137). We believe that there is evidence of a reciprocity effect here, with student respect for teachers related to their perception of teachers'

respecting their role in the classroom enough to be clean, pressed, and neat. There is, however, no indication in Roach's findings that clean, pressed, neat, professional, appropriate, and fashionable instructor dress necessarily translates to wearing a suit or equivalent standard business attire, i.e., the power dressing conclusion that has been borrowed from research in non-classroom contexts and translated to recommendations for teachers. The intuitive appeal of generalizing findings of attire-perception studies conducted outside of the live classroom context to that setting is strong. However, based on findings across this series of three Fashion in the Classroom studies, we are convinced that conventional wisdom does not in this case apply.

NOTES

- 1 Potential attire options were pretested by asking undergraduate students not involved in the experimental study to sort 34 photographs (17 of males and 17 of females) into four categories of teacher dress. Three categories formal professional, casual professional, and casual were similar to those used in previous research (e.g., Rollman, 1980); the fourth category was "inappropriate teacher dress" and was used to identify dress variables which should be avoided in defining dress conditions. Photos were taken from magazines, selected to represent a cross-section of the various conditions as defined in previous studies. To minimize effects of extraneous variables, photos were of models with approximately the same body types and did not include heads.
Following examination of dress variables that appeared in photographs consistently categorized as either formal professional, casual professional, or casual, the attire conditions for the study were defined as follows: *Formal Professional* (Male) dark business suit, white shirt with dark tie, dress shoes (Female) dark/neutral skirted business suit, sheer hose, high-heeled pumps; *Casual Professional* (Male) light colored casual slacks, dark sport shirt (button-front, button-down collar) in a muted plaid, no tie, brown leather casual shoes (Female) skirt and sweater, primarily in tan/dark colors, dress pumps; *Casual* (Male and Female) faded, worn blue jeans, light-colored T-shirt, plaid flannel shirt worn open, sport/athletic shoes.
- 2 See Andersen, 1979; Andersen, Norton, & Nussbaum, 1981; Christophel, 1990; Fayer, Gorham, & McCroskey, 1993; Gorham, 1988; Gorham & Christophel, 1990, 1995; Kearney, Plax, & Wendt-Wasco, 1985; Kelley, 1988; McDowell, McDowell, & Hyerdahl, 1980; Plax, Kearney, McCroskey, & Richmond, 1986; Richmond, Gorham, & McCroskey, 1987; Sanders & Wiseman, 1990.
- 3 Bipolar descriptors for the instructor perception scales were: *competence* (expert/inexpert, intelligent/unintelligent, qualified/unqualified); *character* (unselfish/selfish, kind/cruel, sympathetic/unsympathetic); *sociability* (pleasant/unpleasant, cheerful/gloomy, good-natured/irritable); *composure* (poised/nervous, relaxed/tense, calm/anxious); and *extroversion* (aggressive/meek, talkative/quiet, bold/timid). These five dimensions were originally characterized as components of source credibility; however, subsequent research has identified competence and character as two critical components of credibility (McCroskey & Young, 1981) while sociability, composure, and extroversion are separate but similarly important perceptions of teachers (McCroskey, 1992).

REFERENCES

- Andersen, J. F. (1979). Teacher immediacy as a predictor of teaching effectiveness. In D. Nimmo (Ed.). *Communication yearbook 3* (pp. 543-559). New Brunswick, NJ: Transaction.

- Andersen, J. F., Norton, R. W., & Nussbaum, J. F. (1981). Three investigations exploring relationships between perceived teacher communication behaviors and student learning. *Communication Education*, 30, 377-392.
- Bassett, R.E. (1979). Effects of source attire on judgements of credibility. *Central States Speech Journal*, 30, 282-285.
- Bickman, L. (1974). The social power of a uniform. *Journal of Applied Social Psychology*, 4, 47-61.
- Cronbach, L.J. & Furby, L. (1970). How should we measure "change" - or should we? *Psychological Bulletin*, 74, 68-80.
- Christophel, D. M. (1990). The relationship among teacher immediacy behaviors, student motivation, and learning. *Communication Education*, 39, 323-340.
- Cohen, J. (1977). *Statistical power analysis for the behavioral sciences* (Revised Edition). New York: Academic Press.
- DeMeuse, K.P. (1987). A review of the effects of non-verbal cues in the performance appraisal process. *Journal of Occupational Psychology*, 60, 207-226.
- Fayer, J.M., Gorham, J., & McCroskey, J.C. (1993). Teacher immediacy and student learning: A comparison between U.S. mainland and Puerto Rican classrooms. In J. Fayer (Ed.), *Puerto Rican communication studies* (pp. 111-126). Puerto Rico: Fundacion Arqueologica, Antropologica, e Historica de Puerto Rico.
- Goffman, E. (1959). *The presentation of self in everyday life*. Garden City, NY: Doubleday.
- Gorham, J. (1988). The relationship between verbal immediacy behaviors and student learning. *Communication Education*, 37, 40-53.
- Gorham, J. & Christophel, D.M. (1990). The relationship of teacher's use of humor in the classroom to immediacy and student learning. *Communication Education*, 39, 46-62.
- Gorham, J. & Christophel, D.M. (1995). A test-retest analysis of student motivation, teacher immediacy, and perceived sources of motivation and demotivation in college classes. *Communication Education*, 44, 292-306.
- Gorham, J., Cohen, S.H., & Morris, T.L. (1997). Fashion in the classroom II: Instructor immediacy and attire. *Communication Research Reports*, 14, 11-23.
- Harris, M.B., James, J., Chavez, J., Fuller, M.L., Kent, S., Massanari, C., Moore, C., & Walsh, F. (1983). Clothing: Communication, compliance, and choice. *Journal of Applied Social Psychology*, 13, 88-97.
- Hensley, W.E. (1981). The effects of attire, location, and sex on aiding behavior: A similarity explanation. *Journal of Nonverbal Behavior*, 6, 3-11.
- Hickson, M.L. & Stacks, D.W. (1993). *NVC: Nonverbal communication studies and applications* (3e). Dubuque, IA: William C. Brown.
- Hoult, T.F. (1954). Experimental measurement of clothing as a factor in some social ratings of selected American men. *American Sociological Review*, 19, 326-327.
- Kearney, P., Plax, T.G. & Wendt-Wasco, N.J. (1985). Teacher immediacy for affective learning in divergent college classes. *Communication Quarterly*, 33, 61-74.
- Kelley, D.H. (1988). Student learning as a function of teachers' use of immediacy and students' perceptions of the ideally immediate teacher. Unpublished thesis, West Virginia University.
- Kelly, D. H. & Gorham, J. (1988). Effects of immediacy on recall of information. *Communication Education*, 37, 198-207.
- Leathers, D.G. (1992). *Successful nonverbal communication*. New York: Macmillan.
- Lefkowitz, M., Blake, R., & Mouton, J. (1955). Status factors in pedestrian violation of traffic signals. *Journal of Abnormal and Social Psychology*, 51, 704-706.
- Kuehne, S.H. & Creekmore, A.M. (1971). Relationships among social class, school position and clothing of adolescents. *Journal of Home Economics*, 63, 555-556.

- Marsh, H.W. & Roche, L.A. (1997). Making students' evaluations of teaching effectiveness effective. *American Psychologist*, 52, 1187-1197.
- Marsh, H.W. & Ware, J.E. (1982). Effects of expressiveness, content coverage, and incentive on multidimensional student rating scales: New interpretations of the Dr. Fox effect. *Journal of Educational Psychology*, 74, 126-134.
- McCroskey, J.C. (1992). *An introduction to communication in the classroom*. Edina, MN: Burgess.
- McCroskey, J.C., Hamilton, P.R., & Weiner, A.H. (1974). The effect of interaction behavior on source credibility, homophily, and interpersonal attraction. *Human Communication Research*, 1, 42-52.
- McCroskey, J.C., Jensen, T., & Valencia, C. (1973). The measurement of the credibility of peers and spouses. Paper presented at the annual meeting of the International Communication Association.
- McCroskey, J.C. & Richmond, V.P. (1996). *Fundamentals of human communication: An interpersonal perspective*. Prospect Heights, IL: Waveland Press.
- McCroskey, J.C., Richmond, V.P., & Daly, J.A. (1975). The development of a measure of perceived homophily in interpersonal communication. *Human Communication Research*, 3, 323-332.
- McCroskey, J.C., Richmond, V.P., Sallinen, A., Fayer, J.M., & Barraclough, R.A. (1995). A cross-cultural and multi-behavior analysis of the relationship between nonverbal immediacy and teacher evaluation. *Communication Education*, 44, 281-291.
- McCroskey, J.C. & Young, T.J. (1981). Ethos and credibility: The construct and its measurement after three decades. *Central States Speech Journal*, 32, 24-34.
- McDowell, E.E., McDowell, C.E. & Hyerdahl, J. (1980, November). A multivariate study of teacher immediacy, teaching effectiveness and student attentiveness at the junior and senior high levels. Paper presented at the annual meeting of the Speech Communication Association, New York.
- Miller, F.G. & Rowold, K.I. (1980). Attire, sex-roles, and responses to requests for directions. *Psychological Reports*, 47, 661-662.
- Milliken, G.A. (1984). *Analysis of messy data*. Belmont, CA: Lifetime Learning Publications.
- Molloy, J.T. (1975). *Dress for success*. New York: Warner Books.
- Molloy, J.T. (1977). *The women's dress for success book*. Chicago: Follett Publishing.
- Molloy, J.T. (1988). *New dress for success*. New York: Warner.
- Morris, T. L., Gorham, J., Cohen, S.H., & Huffman, D. (1996). Fashion in the classroom: Effects of attire on student perceptions of instructors in college classes. *Communication Education*, 45, 135-148.
- Plax, T.G., Kearney, P., McCroskey, J.C., & Richmond, V.P. (1986). Power in the classroom VI: Verbal control strategies, nonverbal immediacy, and effective learning. *Communication Education*, 35, 54-65.
- Raiscot, J. (1983). *Jury selection, body language, and the visual trial*. Minneapolis: AB Publications.
- Raiscot, J. (1986). *Silent sales*. Minneapolis: AB Publications.
- Richmond, V.P., Gorham, J.S., & McCroskey, J.C. (1987). The relationship between selected immediacy behaviors and cognitive learning. In M. McLaughlin (Ed.) *Communication Yearbook 10* (574-590). Beverly Hills, CA: Sage.
- Richmond, V.P., McCroskey, J.C., Kearney, P., & Plax, T.G. (1987). Power in the classroom VII: Linking behavior alteration techniques to cognitive learning. *Communication Education*, 36, 1-12.
- Roach, K.D. (1997). Effects of graduate teaching assistant attire on student learning, misbehaviors, and ratings of instruction. *Communication Quarterly*, 45, 125-141.

- Rogers, E.M. , & Shoemaker, F.F. (1971). *Communication of innovations*. New York: Free Press.
- Rollman, S.A. (1980, April). Some effects of teachers' styles of dress. Paper presented at the annual meeting of the Southern Speech Communication Association, Birmingham, AL.
- Sanders, J.A. & Wiseman, R.L. (1990). The effects of verbal and nonverbal immediacy on perceived cognitive, affective, and behavioral learning in the multicultural classroom. *Communication Education*, 39, 341-3353.
- Schlenker, B.R. (1980). *Impression management*. Monterey, CA: Brooks/Cole.
- Schlenker, B.R. (1985). Identity and self-identification. In B.R. Schlenker (Ed.), *The self and social life* (pp. 65-99). New York: McGraw Hill.
- Smith, L.J. & Malandro, L.A. (1985). *Courtroom communication strategies*. New York: Kluwer.
- Searle, S.R. (1987). *Linear models for unbalanced data*. New york: Wiley.
- Solomon, M.R. & Schopler, J. (1982). Self-consciousness and clothing. *Personality and Social Psychology Bulletin*, 8, 508-514.
- Tedeschi, J.T. & Norman, W. (1985). Social power, self-presentation, and the self. In B.R. Schlenker (Ed.), *The self and social life* (pp. 293-322). New York: McGraw Hill.