11. TEACHER IMMEDIACY AND STUDENT LEARNING: A COMPARISON BETWEEN U.S. MAINLAND AND PUERTO RICAN CLASSROOMS

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Learning, particularly that which takes place in the traditional classroom setting, is an interactional process. While curricular decisions, materials development, the organization of lectures and the like focus primarily on transmission of content --and students evaluation of comprehension and retention of that content--there is little argument that interpersonal perceptions and the relationship between teachers and students are crucial to the teaching-learning process.

From a theoretical standpoint, Bloom's (1956) conceptualization of learning as affective (development of favorable or unfavorable attitude toward learning, behavioral (development of psychomotor skills or observable behavior change as a result of learning), and cognitive (comprehension and retention of knowledge) has for several decades been widely accepted as an elegant characterization of the learning construct. An interdependence among these learning domains has been generally recognized among educators, an assumption crucial to the fact that evaluation of learning outcomes is often focused on measurement within a selected domain. Physical and vocational education skills, terminal psychomotor skills which are clearly observable, are often assessed in the behavioral domain. Student learning of traditional "academic subjects," for which generalization of learning to behavior outside the classroom is more difficult to assess, is generally measured via tests of recall, analysis, and synthesis, elements of the cognitive domain. Evaluation of teaching effectiveness, particularly that which is based on the ubiquitous student course evaluation form, is drawn largely from assessment of affective dimensions of teaching.

An operational definition of what constitutes good teaching has been elusive (Brin, 1958; Cypert, 1972; Getzels & Jackson, 1963; Hearth & Nielsen, 1974). As Simon and Boyer (1974) explained:

A great deal has been written lately about teaching techniques designed to help teachers engage in different types of classroom processes. Much of the literature about these classroom processes does not specify the teaching strategy necessary in order to be able to bring about desired outcomes. Often, this is because the tools for discussing the necessary teaching behaviors are not available, or not known about by the curriculum authors. Thus the desired outcome for students is discussed, but the way to get there is not.

...The traditional role of teacher is described by a well-known set of behaviors. Any school child playing "teacher" will produce most of the behavior used by most teachers. Typical behaviors are: standing in the front of a group of relatively passive onlookers (a position of authority), doing most of the talking (telling), asking questions to which they already know the answers (testing), and evaluating by passing judgments. Yet, no research base indicates that these behaviors have payoff in terms learning, and much indicates that they do not. (p. 5)

Teaching-learning interactions, like any interpersonal relationships, are characterized by both explicit and implicit communication (Mehrabian, 1981). There is little disagreement that interpersonal perceptions and communicative relationships between teachers and students are crucial to the teaching-learning process, and that the degree of immediacy between teachers and students is an important variable in those relationship. (Andersen, 1978, 1979; Richmond, Gorham & McCroskey, 1986). Meharabian (1981) has noted that "a considerable accumulation of evidence from various fields of psychology points to a very elegant conceptualization of human emotions, attitudes, likes-dislikes, and preferences [which are the referents of implicit communication]. Very simply, all emotional states can be described adequately in terms of three independent dimensions of pleasure-displeasure, arousal-nonarousal, and dominance-submissiveness" (p.5). the more arousing or pleasurable an entity is the more it is liked. The more submissive a person feels in a relationship the less variation there will be in liking, despite large variations in pleasure, arousal, or both. Thus we have three major referent dimensions in implicit communication: pleasure-liking, arousal, and dominance. The behaviors which communicate these referents can be classified as approach-avoidance, arousal-activity, or power-status metaphors.

Like, as opposed to dislike, is expressed and understood in terms of the approach metaphor, behaviors which reduce physical or psychological distance and/or increase perceptual simulation between and among interactants. Arousal is conveyed in part by variety or "shifts" in body position, vocal expression, and facial expression. Power is communicated thought size, expansiveness, control, and relaxation (Mehrabian, 1981). Quantity of talking also indicates power: those who talk more are perceived as more dominant (Sorrentino & Boutillier, 1975; Stang, 1973). These metaphors have been characterized largely in terms of nonverbal behaviors, which have, in turn, been related to effective teaching-learning relationships.

Since immediacy --which Mehrabian (1969, p. 203) defines as communicative behaviors which "enhance closeness to and nonverbal interaction with another"-- is related to affect a positive interpersonal relationship developed between teachers and students in both the United States and Puerto Rico would seem likely to influence the development of favorable attitudes toward the learning situation. A number of empirical studies have supported this position (see Andersen & Andersen, 1982, pp. 110-112).

While somewhat more elusive, in light of what we know about theories of persuasion, immediacy seems likely to influence the probability of behavioral change as well. The intuitive link between immediacy and cognitive learning is less straightforward, partially because cognitive gain in generally assessed through measures of recall, synthesis, and application of information transmitted verbally; while relationship information is transmitted nonverbally, content information is transmitted verbally.

The empirical evidence linking nonverbal immediacy behavior to cognitive learning is also less clear. In Andersen's (1978,, 1979) study of U.S. college students enrolled in an introductory interpersonal communication course, teacher immediacy predicted 46% of the variance in student affect toward the course instructor, 20% of the variance in student affect toward the course content, and 18% of the variance in student behavioral commitment. Cognitive learning, however, as operationalized by scores on a 50-item multiple choice test, was not significantly predicted by teacher immediacy. McDowell, McDowell and Hyerdahl (1980) replicated Andersen's research in communication courses at the junior and senior high school levels, adding additional exploratory variables to determine whether measures of homophily and/or student attentiveness correlate with immediacy variables. The overall results revealed significant relationship between and among affect, behavioral commitment, immediacy, homophily, and attentiveness variables, but low correlation between these variables and the cognitive learning measure. In the junior high group, students who gave the teacher high ratings on Andersen's Behavioral Indicants of Immediacy Scale (BII), which focuses on teacher use of immediacy behaviors, reported that they enjoyed engaging in communication practices (i.e., demonstrated behavioral commitment) and received higher course grades. These variables were, however, negatively correlated with the Generalized Immediacy Scale (GI), Andersen's assessment of the perceived general immediacy of the instructor. At the senior high level, significant positive relationships existed between the BII, engaging in communication practices, homophily and attentiveness variables, but no relationship was found between these variables and cognitive learning (the course grade).

Andersen and Andersen (1982) summarize several additional studies in which examination of specific nonverbal immediacy behaviors such as eye contact (Breed, Christiansen & Larson, 1972), vocal inflection (Coats & Smidchens, 1966), gestures Gauger, 1952), proximity, smiling and touch (Kleinfeld, 1973) have been positively elated to various measures of cognitive gain. Taken together with the Andersen and McDowell, et al. studies, we are left with inconclusive and somewhat confusing data egarding the relationship of teacher immediacy and the cognitive domain of learning.

Krathwohl, et. al. (1964) cite evidence that cognitive learning can occur at the expense of affective outcomes. It is equally possible that affective outcomes might occur at the expense of cognitive learning, that high affect for the teacher might, in fact, interfere with cognitive learning (Andersen, 1979). If this is true and we are concerned with achievement in the cognitive domain, we might note that high immediacy teachers produce high affect outcomes and hypothesize that low immediacy teachers will thus produce high cognitive outcomes, a sort of "pain equals gain" relationship like that espoused by at least some exercise fanatics. Richmond, Gorham, and McCroskey (1986). however, noted that this interpretation of mutual exclusively is incompatible not only with Bloom's taxonomy but with Mehrabian's conceptualization of the immediacy construct. They speculated that at least part of the confusion in establishing the relationship between teacher immediacy and cognitive learning related to problems in establishing valid measures of the cognitive learning variable.

Cognitive learning has, in studies related to teacher immediacy, most often been measured in terms of course grades or performance on standardized tests. Gorham (1987) suggests that assessment via course grades is confounded by variables such as attendance, writing skills, participation, student preparation, and perceived motivation and may reflect student compliance as much as learning. Assessment via standardized tests is not useful across disparate content areas and is affected by writing skills, test anxiety, preparation, and whether, in fact, test items address what an individual has actually learned and retained from a much larger body of information than that included in the test items. It is not uncommon to find similar points raised in the conclusions of studies which have used these measures of cognitive learning. Andersen (1979), for example, suggests that the single test grade entered as the cognitive learning variable in her study may have been recorded too early in the course for a relationship between performance and immediacy to have been established or that the nature of the course, incorporating a mastery-learning design, might have skewed grade distributions. McDowell, et.al. (1980) suggest that junior high students might be more motivated to study for examinations, prepare assignments and generally strive to meet criteria for determining the course grade for teachers whom they wish to please. Senior high students may be less influenced by adult authority and fail to prepare for tests and assignments from which the course grade is drawn; thus, long-term cognitive gain might not be accurately reflected in course grades for either group.

In light of these measurement problems, Richmond, Gorham, and McCroskey have proposed the use of student perceptions of their own learning as a measurement of cognitive gain. Using this measure, substantial associations between teacher immediacy and perceived cognitive learning have been found (Richmond, Gorham, & McCroskey, 1986; Gorham 1987). Their relationship appears to be non-linear, a relationship in which immediacy is necessary for cognitive learning, in which low immediacy interferes with such learning, but in which high immediacy may not increase cognitive learning over that generated by moderate immediacy. This explanation might, in part, explain the differences in results of previous studies, some using consenting teachers (the majority of whom appear to be at least moderately immediate) and some using experimentally enhanced high-low distinctions.

While these recent studies provided insight into problems which may have confounded previous studies of the immediacy-cognitive learning relationship and suggested that such a relationship does exist, the degree to which affect entered into the learning measure was still unknown. Tests performance and grades are imperfect measures of learning; Milton, et al. have, following an extensive study of college grading, concluded that "a grade is a unidimensional symbol into which multidimensional phenomena have been incorporated, a true salmagundi. Translated, this means that a given grade can reflect level of information, attitudes, procrastination, errors or misconceptions, cheating, and mixtures of all these plus other ingredients" (1986, p. 212). Students' perceptions of how much they have learned are an alternative, but still imperfect, measure of cognitive learning. The fact that students believe that they have learned more from immediate teachers is meaningful by itself; it can be argued, however, that the increased affect for immediate teachers and subjects taught by immediate teachers might result in student's overestimation of what they have actually learned.

Kelley and Gorham (1987) have approached investigation of the immediacy-cognitive learning relationship in a different manner, testing the ability of subjects to recall word-number sequences presented in immediate and non-immediate conditions. Their results indicated that the combination of eye contact and physical immediacy accounted for 19.5% of the overall variance in recall, with accuracy in recall when both were present substantially higher than when neither was present and nearly identical when either eye contact or physical immediacy was used alone. In addition, absence of eye contact appeared to be related to problems in sequencing items during recall. These results, obtained under experimental conditions which removed the effects of affect, supported conclusions that a teacher's use of immediacy behaviors is likely to be related to cognitive learning and that the relationship is direct rather than mediated though affect.

We know that positive teacher immediacy behaviors are associated with increased student affect, and that teachers' perceptions of success in teaching are largely associated with affective outcomes (Harcotunian & Yarger, 1981). We also have strong indications that the use of such behaviors is directly associated with cognitive learning. The definition of effective teaching behavior thus includes optimal use of teacher behaviors which enhance perceived immediacy. The prescriptive usefulness of this definition is directly associated with the degree to which such strategies can be consciously employed by teachers. It has been demonstrated (e.g., Bradley, 1979; Grant & Hennings, 1971; Karr-Kidwell, 1978; Klinzing, 1983, 1984; Nier, 1979; Nussbaum, 1984) that teachers' behaviors can be adapted through awareness and training. The identification of behaviors which are likely to have the greatest effect on learning outcomes provides teachers and teacher educators with clearly focused behavioral objectives in their efforts to improve teaching effectiveness.

Nonverbal Immediacy

Mehrabian (1981) indicates that immediacy in the interaction between two people "includes greater physical proximity and/or more perceptual stimulation of the two by one another" (p. 14). Immediacy is thus characterized in part by reduced physical or psychological distances in teacher-student interactions. Hesler's (1972) comprehensive study of teachers' proxemic positioning revealed that teachers who sat at, on, beside or behind the desk were rated by students as low in both affection and inclusion while teachers who moved in front of the desk or among the students were more likely to be perceived as warm, friendly, and effective. Research has provided solid evidence that more immediacy in communicated when people face one another directly and that people assume closer positions to those they like than to strangers or those they dislike (e.g.,Aiello & Cooper, 1975; Andersen, Andersen & Jensen, 1979; Byrne, Baskett & Hodges, 1971; Mehrabian 1968, 1967; Mehrabian & Friar, 1969; Patterson & Sechrest, 1970). When social interaction takes place in close proximity, the frequency and duration of touch can be used as an indication of liking or interpersonal closeness (Andersen, Andersen & Jensen, 1979; Fisher, Rytting & Heslin, 1976; Henley, 1977; Jourard, 1966; Montague, 1978; Morris 1971). While the point at which close physical proximity and, to an even greater extent, interpersonal touch becomes uncomfortable differs among individuals, the lack of recognition resulting from psychological distancing can negate any verbal attempts to establish interpersonal bonds. A teacher's withholding of touch, for example, may result in feelings of rejection and isolation in students (Hurt, Scott & McCroskey, 1978).

Even where close physical proximity is not possible, direct eye contact can provide psychological closeness between teachers and students and has been shown to be an important part of both interpersonal immediacy and teacher immediacy (Andersen, 1979; Andersen, Andersen & Jensen, 1979). Hodge (1971), Bishop (1976) and others have similarly commented on the importance of the teacher establishing eye contact with both the class as a whole and with individual students within the group. In a series of studies regarding the effects of teacher gaze on the attitudes of university students, Breed (1971) found that the absence of eye contact between teachers and students usually produced negative student feelings and that high levels of gaze at particular students made them more attentive to the teacher. Mehrabian (1981) notes that "considerable evidence has been accumulated showing that more eye contact is associated with greater liking and more positive feelings among interactions" (p.23). Such evidence can be found in the work of Exline and Winters (1965), Kendon (1967), Mehrabian (1968), Mehrabian and Friar (1969 and Thayer and Schiff (1974).

Beyond increasing physical and/or psychological proximity, immediacy is also characterized by behaviors which contribute to perceptual stimulation during interpersonal interaction. Smiling is one nonverbal behavior which has been associated with such perceptual stimulation, indicating both liking and arousal (Mehrabian, 1981; Kraut & Johnson, 1979). Andersen, Andersen, and Jensen (1979) classified smiling as central to the concept of immediacy; Kendon (1967) noted that smiles are reciprocal immediacy behaviors: when one person smiles, the other is likely to smile

in return. Ekman (Stern, 1984) has, in fact, reported that the act of smiling "causes your involuntary nervous systems to go through corresponding changes in heart rate, skin temperature and electrical resistance usually associated with the emotion and causes you to experience the feeling your face in mimicking" so that "when we see someone else smiling, we feel a similar sensation" (p. 113). Rosenfeld (1966) found smiling the most commonly used behavior to communicate affiliativeness; similarly, Bayes (1970) identifies frequency of smiling as the single best predictor of perceived interpersonal warmth.

Perceptual stimulation is also related to body movement; a physically active teacher provides both visual and auditory sensory arousal. Subjects in Rosenfeld's (1966) study of approval-seeking increased both gestural activity and head nodding when seeking positive affect. Andersen (1979) and Andersen, Andersen and Jensen (1979) found overall body movement positively associated with perceived teacher immediacy. Mehrabian (1971) proposed that greater use of gestures by a teacher "tends to be associated with a more affiliate classroom style which in turn elicits liking and cooperation from others" (Smith, 1979, p. 649). Beebe (1980) summarizes studies by Mehrabian (1971) and Seals and Kaufman (1975) which indicated clear differences between the kinesic patterns of effective and "average" teachers: effective teachers moved more; student attitudes were positively correlated with increased instructor activity. A relaxed body posture has also been found to be related to teacher immediacy (Andersen, 1979), to be influential in eliciting opinion change (McGinley, Le Fevre & McGinley, 1975), and to be less likely when individuals dislike one another (Mehrabian, 1968).

A last factor related to perceptual stimulation and immediacy is the nonverbal paralinguistic or vocalic variable. While Mehrabian (1981) supports the clear relationship between vocal expressiveness, rate and volume, and both interpersonal liking and arousal, the effects of paralinguistic variables on classroom teaching performance have not been extensively investigated (Smith, 1979). Bayes' (1970) study of the behavioral cues of interpersonal warmth concluded that tone of voice was not a reliable indicator of affect; however, Scherer's (1972) experimentation with electronically synthesized nonverbal sounds indicated that emotional and affective cues could be communicated thought changes in pitch and tempo. Andersen, Andersen and Jensen (1979) similarly found vocal expressiveness an important factor in communicating immediacy. In a related study, Wineke (1981) concluded that the delivery as well as the content and organization of the first lecture in university classes had a significant impact on students' approach the subject and to the teacher.

Verbal Immediacy

Mehrabian (1967, 1981) has characterized, verbal immediacy as stylistic differences in expression from which like-dislike is inferred. Approach-avoidance, for example, is expressed through variation in adjectives ("This person needs help" vs. "That person needs help"), verb tense (present vs. past), order of occurrence of references, inclusivity ("we" vs. "I"), mutuality ("Judy and I do X" vs. "I do X with Judy"), implied voluntarism ("want to" vs. "have to" or "should"), probability ("will"

vs. "may"), conditionally ("I would like to see you again" vs. "I want to see you again"), and responsibility ("I conclude" vs. "The results lead me to conclude"; "I don't like her" vs. "Most people find her intolerable"). Weiner and Mehrabian (1968) have developed a procedure for analyzing linguistic immediacy which involves dividing language samples into clauses and scoring them based on the presence of any of nine classes of nonimmediacy features. Various studies have shown that unpleasant experiences are referred to with greater nonimmediacy than pleasant ones, that nonimmediacy of verbal communication increases as negative affect increases (Conville, 1974), that positive verbal immediacy is associated with positive perceptions of the intended receiver, and that verbal immediacy is directly related to receiver judgments of source competence and character (Bradac, Bowers, & Courtright, 1979).

Gorham (1987) identified a different set of teacher verbal behaviors which influenced perceptions of teacher immediacy and which contributed meaningfully to cognitive and affective learning. The teacher's use of humor in class appears to be of particular importance, as are his/her praise of student's work, actions or comments and frequency of initiating and/or willingness to become engaged in conversations with students before, after, or outside of class. In addition, a teacher's self-disclosure (use of personal examples or discussion of experiences he/she has had outside of class); asking questions or encouraging students to talk; asking questions that solicit viewpoints or opinions; following up on student-initiated topics; reference to class as "our" class or what "we" are doing; asking students how they feel about assignments, due dates, or discussion topics; and invitations for students to telephone or meet with them outside of class if they have questions or want to discuss something all contributed to student-reported cognitive and affective learning.

The verbal immediacy behaviors identified in Gorham's study are intuitively compatible with Mehrabian's (1981) approach-avoidance metaphor. Teachers who exhibit these behaviors reduce psychological distance by recognizing individual students and their ideas and viewpoints, by incorporating student input into course and class design, by communicating availability and willingness to engage in one-to-one interactions, and by enhancing their "humanness" via humor and self-disclosure. Factor analysis indicated that these verbal behaviors loaded on a single factor with 14 nonverbal immediacy behaviors investigated in the same study. The results of the study thus indicated that students' perceptions of teacher immediacy are influenced by verbal as well as nonverbal behaviors, and that these behaviors contribute to cognitive and affective learning.

Immediacy and Learning in Puerto Rico

The studies summarized to this point have indicated that teacher immediacy is an important element of effective teacher behavior in classrooms on the United States Mainland. North Americans, as a whole, tend to be nonverbally less immediate than Latin Americans; they are, along with Northern Europeans, characterized as a "non-contact culture" in which personal space is more protected than in Latin American cultures. We wondered whether the potency of teacher immediacy as a predictor of cognitive and affective learning which has emerged in the Mainland studies was

universal or whether it stemmed from the lack of immediacy in the general culture. In the interest of addressing this question, a study was designed which would allow comparisons between immediacy-learning relationships in contact (Puerto Rican) and non-contact (U.S. Mainland) cultures.

The study involved 445 Puerto Rican university students and 308 U.S. Mainland university students who completed a questionnaire reporting the degree to which individual teachers used various verbal and nonverbal immediacy behaviors and measuring the perceived cognitive and affective learning in the courses taught by those teachers. The questionnaire consisted of three parts. Students were asked to respond in terms of the teacher in the class they had had most recently prior to coming to the class in which the questionnaire was completed; this provided data on a variety of teachers across disparate content areas in both major and non-major courses.

The first section of the questionnaire presented 20 verbal and 14 nonverbal behaviors used in previous studies of teacher immediacy (Richmond, Gorham & McCroskey, 1986; Gorham, 1987). Students were asked to indicate on a 0-4 scale (0 = never, 4 = very often) how often the teacher being referenced used each behavior. For example:

The teacher in the last class I had before coming to this class:

1. Uses personal examples or talks about experiences she/he has had outside of class: Never=0 Rarely=1 Occasionally=2 Often=3 Very Often=4

2. Gestures while talking to class: Never=0 Rarely=1 Occasionally=2 Often=3 Very Often=4

The remaining 32 behaviors to which students responded on the same scale included the following (items marked with an asterisk were assumed to be non-immediate):

3. Asks questions or encourages students to talk
4. Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan
5. Uses humor in class
6. Addresses students by name
7. Addresses me by name
8. Gets into conversations with individual students before or after class
9. Has initiated conversations with me before, after, or outside of class
10. Refers to class as "my" class or what "I" am doing.
11. Refers to class as "our" class or what "we" are doing.
12. Provides feedback on my individual work through comments on papers, oral discussions, etc.
13. Calls on students to answer questions even if they have not indicated that they want to talk.
14. Asks how students feel about an assignment, due date or discussion topic.
15. Invites students to telephone or meet with him/her outside of class if they have questions or want to discuss something
16. Asks questions which have specific, correct answers

17. Asks questions that solicit viewpoints or opinions
18. Praises students' work, actions or comments
19. Criticizes or points out faults in students' work, actions or comments
20. Will have discussions about things unrelated to class with individual students or with the class as a whole
21. Is addressed by his/her first name by the students
22. Sits behind desk while teaching
23. Uses monotone/dull voice while talking to class
24. Looks at the class while talking
25. Smiles at the class as a whole, not just individual students
26. Has a very tense body position while talking to the class
27. Touches students in the class
28. Moves around the classroom while teaching
29. Sits in a chair while teaching
30. Looks at board or notes while talking to the class.
31. Stands behind podium or desk while teaching
32. Has a very relaxed body position while talking to the class
33. Smiles at individual students
34. Uses a variety of vocal expressions while talking to the class

The second section of questionnaire measured perceived cognitive learning through two scales. Students were asked to indicate "On a scale of 0-9, how much did you learn in this class? (0 means you learned nothing and 9 means you learned more than in any other class you've had)." They were then asked, on the same scale, to report "How much do you think you could have learned in the class if you had the ideal instructor?" The first score was subtracted from the second score to provide a measure called "learning loss." This gave us an indication of expectation and satisfaction. A student might, for example, find the subject matter in a particular course difficult or less than exciting and report that the moderate amount they learned in the class with that teacher wouldn't have been any greater with another "ideal" teacher. A low learning loss score would indicate general satisfaction with the teacher if not the subject. A high learning loss score would indicate that the student perceived problems in learning because of the teacher.

The third part of the questionnaire measured affective learning. Attitudes (toward the course context, behaviors recommended, and course instructor) and behavioral intention (in terms of the likelihood of actually attempting to engage in behaviors recommended, likelihood of enrolling in another course with related content, and likelihood of enrolling in another course with the same teacher) were measured via 24 seven-step, bipolar scales. For example:

My attitude toward the instructor of this course:

Good	1	2	3	4	5	6	7	Bad
Worthless	1	2	3	4	5	6	7	Valuable
Fair	1	2	3	4	5	6	7	Unfair
Positive	1	2	3	4	5	6	7	Negative

My likelihood of actually enrolling in another course of related content if I had the choice and my schedule permits (If you are graduating, assume you would still be here):

Likely	1	2	3	4	5	6	7	Unlikely
Impossible	1	2	3	4	5	6	7	Possible
Probable	1	2	3	4	5	6	7	Improbable
Would	1	2	3	4	5	6	7	Would not

An overall affect score was generated by adding scores on all items.

The comparison of results from the U.S. Mainland and Puerto Rican groups indicated some interesting findings. In general, a teacher's use of verbal and nonverbal immediacy behavior was associated with perceptions of increased cognitive and affective learning in both groups. The degree to which immediacy affected learning (the variance accounted for) was greater for the Mainland teachers. The mainland teachers also varied more among themselves in their use of nonverbal immediacy behaviors than did the Puerto Rican teachers; while the average frequency scores for individual nonverbal behaviors were similar in both groups, the standard deviations were greater for mainland teachers.

In terms of verbal immediacy behaviors, the Puerto Rican teachers appeared to maintain more formal relationships with their students than did the mainland teachers. Across the 20 verbal immediacy behaviors, the mainland score tended to be slightly higher than the Puerto Rican scores. In particular, Puerto Rican teachers were less likely to address students by name, to initiate conversations with individual students before or after class, to provide feedback on individual work through comments on papers or discussions with students, and to invite students to telephone or meet with them outside of class if they have questions or want to discuss something.

The overall affect scores for the Puerto Rican sample were higher then those of the mainland sample, a different which was statistically significant ($p. < .001$). The overall learning loss reported by Puerto Rican students was also higher than that reported by mainland students ($p < .01$). These findings were of interest. While Puerto Rican students reported higher levels of learning, they were also less satisfied that they had learned as much as they could have from an "ideal" teacher. The Puerto Rican students appeared to have higher expectations for learning and less confidence that their teachers had provided an ideal learning situation even though, by their own report, their attitudes toward the courses, teachers, and behaviors recommended were more favorable than those of the more satisfied mainland students.

The differential use of verbal teacher immediacy behaviors contributed more to variation in perception of learning in Puerto Rico than on the mainland. These findings might be related to a contrast effect. On the whole, Puerto Rican teachers were less likely to be verbally immediate. The use of these behaviors, then, might be more likely to distinguish an individual teacher —in this case resulting in his or her being seen as a more effective teacher-- than would be the case where verbal immediacy was more common across teachers.

vs. "may"), conditionally ("I would like to see you again" vs. "I want to see you again"), and responsibility ("I conclude" vs. "The results lead me to conclude"; "I don't like her" vs. "Most people find her intolerable"). Weiner and Mehrabian (1968) have developed a procedure for analyzing linguistic immediacy which involves dividing language samples into clauses and scoring them based on the presence of any of nine classes of nonimmediacy features. Various studies have shown that unpleasant experiences are referred to with greater nonimmediacy than pleasant ones, that nonimmediacy of verbal communication increases as negative affect increases (Conville, 1974), that positive verbal immediacy is associated with positive perceptions of the intended receiver, and that verbal immediacy is directly related to receiver judgments of source competence and character (Bradac, Bowers, & Courtright, 1979).

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We do not know whether, and do what degree, a student's differential assessment of a teacher's use of various behaviors as "rarely," "occasionally," "often," or "very often" was influenced by comparison to cultural norms. It is possible that a mainland teacher who is perceived, for example, as gesturing "very often" by mainland students might be seen as gesturing "occasionally" by Puerto Rican students who would evaluate that teacher's behavior in comparison to different norms. Given the relationship between teacher immediacy and student learning, we might speculate that more learning is likely to occur as a result of classroom interactions in more immediate cultures, such as Puerto Rico. On the whole, the relationships between teacher immediacy and student learning which has been found in studies of mainland classrooms was also evident in Puerto Rican classrooms. The degree to which teacher immediacy accounted for variance in both cognitive and affective learning was greater on the mainland. Teacher immediacy might thus indeed be a more potent factor in influencing perceptions of learning in the context of a less immediate culture. It is important to note, however, that within either context teachers were perceived as differing in their use of immediacy behaviors and that students reported higher levels of affective learning and less learning loss with more immediate teachers.

We have previously suggested that the definition of effective teaching behavior includes optimal use of teacher behaviors which enhance perceived immediacy. The results of this study indicate the Puerto Rican teachers might find a particular payoff in decreasing psychological distance through verbal immediacy. Such behaviors as addressing students by name, providing individualized feedback, initiating conversations with individual students outside of class, and inviting students to interact with them outside of class appear to be less common among Puerto Rican teachers than among mainland teachers. They also appear to contribute more, perhaps by contrast, to differential perceptions of learning in Puerto Rican classrooms. We would thus recommend that Puerto Rican teachers, as well as mainland teachers, will be more effective if they maximize immediacy in their relationships with students and that, in Puerto Rican classrooms, attention to verbal immediacy might be of particular importance in enhancing learning outcomes

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