

THE EFFECTS OF SEX AND CONTEXT ON STUDENTS'
INTERPRETATION OF TEACHERS' HIGH IMMEDIACY MESSAGES

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ABSTRACT

Teacher immediacy has been positively associated with many desirable academic outcomes, including quality student-teacher relationships, student participation in the classroom and in extra-class interaction, and increased student learning. Thus, scholars have consistently encouraged educators to increase their use of immediacy in contacts with students. However, some previous research found that high levels of teacher immediacy can be problematic in relationships and detrimental to desirable educational outcomes. Immediacy behavior tends to promote personal relationships and inclusion. However, excessive immediacy may change the meaning that students receive from the behavior.

Using a message interpretation perspective, this study examined how sex of the student and sex of the teacher effects students' interpretations of teachers' high immediacy behavior in both in-class and extra-class contexts. Results reveal that students interpret high immediacy from male teachers as control but the same behavior from female teachers is interpreted as caring. Students also perceive excessive immediacy as more inappropriate when it is from a male teacher than from a female teacher. Female students are more likely than male students to identify the high immediacy behavior as sexual harassment. Students are also more likely to interpret excessive immediacy as sexual harassment when it occurs in extra-class contexts, such as in the professor's office or in informal contacts in the student center than in the classroom.

CHAPTER 1

INTRODUCTION

Over the last decade many scholars in the field of higher education have advocated a more student-oriented instructional environment as the best method of increasing the quality of undergraduate education. In his comprehensive work, *What Matters in College? Four Critical Years Revisited*, Astin (1993) asserted that involvement with faculty and peers is the key to students' growth and satisfaction during their university experience. Time spent in collaborative interaction and problem-solving with peers and instructors has a significant beneficial effect on students' intellectual and personal development. Haworth and Conrad (1997) described high-quality programs as those that emphasize student learning and provide for student growth and development. They concluded that first-rate educational programs place a premium on interaction between students and faculty in the mutual process of creating knowledge.

This student-oriented educational philosophy grows out of the pedagogy of Paulo Friere (1970) who emphasized that instruction must begin with the students who bring to the class personal knowledge and experiences that can be shared with the instructor and peers through classroom dialogue. Elaborating on Friere's ideas, bell hooks (1994) used the term, "engaged pedagogy" to describe the practices of teachers who ask students to be active participants in the process of teaching and learning. "As a classroom community, our capacity to generate excitement is deeply affected by our interest in one another, in hearing one another's voices, in recognizing one another's presence" (p. 8). This approach to teaching demands that professors must not only be knowledgeable in their field of study, they must also be able to connect with students both inside and outside the

classroom by establishing relationships with them. Effective teachers use strategies that support the intellectual development of students by "making the classroom active, getting students involved, connecting their learning to real life, and creating opportunities for mutual responsibility" (Donald, 1997, p. 116). Faculty concern for students enhances the overall academic experience for both students and professors. Teven and McCroskey (1997) found that students who perceive their teachers as caring about them have higher levels of learning, and Ropers-Huilman (1999) suggested that caring teachers can use their position in the university to support and value their students' expression and understanding of ideas.

Instructional communication scholars have recognized that teacher immediacy, a cluster of communicative behaviors that promote interaction and affiliation, is fundamental to engaged pedagogy. Immediacy has been associated with many desirable academic outcomes, including positive student-teacher relationships, involvement of the student in classroom and nonclassroom interactions, and increased student learning. Thus, scholars have consistently encouraged educators to increase their use of immediacy in contacts with students. However, some researchers have asserted that when the level of teacher immediacy becomes too high, it can be problematic in relationships and detrimental to desirable educational outcomes.

The purpose of this dissertation is to examine immediacy from a message interpretation perspective. Specifically, I will investigate how students interpret high immediacy messages from their teachers in both in-class and extra-class contexts. Since immediacy behavior tends to promote personal involvement between individuals, excessive immediacy may change the relational meaning that the student receives from

those messages. Edwards (1998) argues that the receiver's interpretation of a message is influenced by factors relating to the situation, the individual communicators, and their relationship. In the instructional context, characteristics of the teacher and the student, and the location of the encounter may affect understanding. This study examines the variables of teacher sex, student sex, and the university setting as predictors of students' interpretations of their instructors' high immediacy behaviors.

This chapter is an introduction to the subject and purpose of the dissertation. Chapter 2 will review the literature relevant to immediacy in classroom and extra-class communication and message interpretation. The next chapter will present the rationale and specific hypotheses that predict the relationship between the variables. Chapter 4 is a description of the methodology used in the study, including the participants, the instrument used to collect the data, and the statistical tests employed to analyze it. The results of the data analysis are reported in Chapter 5, and the final chapter is a discussion of the findings and their implications, as well as the limitations of the study and areas of future research.

CHAPTER 2

REVIEW OF THE LITERATURE

This section introduces the immediacy construct and reviews the relevant literature on immediacy in both classroom and out-of-class interactions between teachers and students. The chapter then examines the message interpretation literature, including sex differences in message interpretation and inappropriate messages.

Immediacy

In his book, *Silent Messages*, Mehrabian (1971) used the term “immediacy” to refer to a cluster of behaviors that encourage physical or psychological closeness between people. He described immediacy as approach behavior that increases proximity, such as turning toward another, standing closer or leaning in the direction of the other when seated, touching, and increasing eye contact. Verbal indicators of immediacy include subtle variations in word choice, such as saying “these people” instead of “those people,” using inclusive pronouns, such as “us” or “our,” and asking questions that show interest and attentive listening. Receivers tend to interpret immediacy messages as warmth, attraction, and a desire for involvement (Andersen, 1999). Immediacy signals interest in communication and promotes feelings of liking while inviting the other into relationship.

Communication scholars have advanced three theories that predict behavior that occurs during an immediacy exchange. All three theories involve changes that occur in levels of arousal. Expectancy Violations Theory (EVT) states that people have cognitive expectations regarding the nonverbal behavior of others and that changes in nonverbal behavior produce changes in arousal. Individuals react with either a positive or negative response, depending on the reward value of the source and the extent of the violation.

Thus, increasing immediacy would arouse the receiver, who would interpret the change based on the source's reward value. Increased immediacy from a rewarding source would strengthen liking, and further increases in immediacy would create even more positive responses (Burgoon & Hale, 1988).

The second theory, Discrepancy-Arousal Theory (DAT), is similar to EVT in that it posits that increases in discrepancy between a person's expectations and another's behavior heighten arousal. However, DAT argues that it is the amount of arousal that determines the reaction. Moderate arousal is pleasant and will cause positive affect and similar responses. Excessive arousal is unpleasant and results in negative affect and compensating responses (Cappella & Green, 1982). Applied to increases in immediacy, DAT predicts that as immediacy intensifies, arousal increases, and at some point, the excessive level of immediacy creates an unpleasant reaction, negative affect, and attempts to avoid the other person.

Cognitive Valence Theory (CVT) predicts that increases in immediacy are inherently arousing. The change activates a variety of cognitive schemas, any one of which may be negatively valenced. Thus a moderate increase in immediacy would produce various responses depending on which schema is activated. Large changes will produce high arousal and defensive responses (Andersen, Guerrero, Buller, & Jorgensen, 1998).

In an experiment designed to test all three theories on an increasingly immediate exchange between opposite-sex friends, researchers found that subjects reacted differently to moderate and high immediacy. Moderate immediacy change produced small changes in arousal and reciprocity, which is consistent with Mehrabian's (1971)

description of immediacy. However, large increases in immediacy received much more pronounced arousal and both affiliative and defensive reactions toward the individual (Andersen et al., 1998). Andersen and his colleagues noted that avoidance reactions in a rewarding relationship (friendship) indicate that high immediacy creates ambivalence in the receiver and speculated that the defensive reaction may be reflexive while the positive reaction may be interpretive. The researchers concluded that in close relationships the immediacy-exchange process is probably more complex than any of the three theories indicate.

While Mehrabian, Burgoon, Andersen and other researchers explored immediacy in a variety of personal relationships, instructional communication scholars have examined the way it functions in the hierarchical relationship between teachers and students. They have identified the specific verbal and nonverbal immediacy behaviors that operate within academic settings. A teacher's nonverbal immediacy includes vocal expressiveness, smiling, appropriate touching, direct body orientation and eye contact when talking to students, decreasing physical distance, maintaining a relaxed body posture, moving to the front of the desk or among the students, and using gestures and head nods when talking to students (Andersen, 1979; Andersen, Andersen, & Jensen, 1979; Richmond, Gorham, & McCroskey, 1987). Verbal immediacy messages include addressing the student by name, using inclusive pronouns as in "our" class, sharing personal examples or experiences, using humor, inviting students to meet or phone after class if they want to discuss something, using statements that encourage students to talk and become involved, such as "Let's talk about this," and asking questions that solicit

student viewpoints, such as "What do you think?" (Gorham, 1988). Researchers have examined teacher immediacy in both in-class and out-of-class contexts.

Immediacy and In-Class Communication

Studies over the past 25 years have associated a teacher's use of immediacy with a variety of positive instructional outcomes. Teacher immediacy increases student engagement in the classroom by increasing students' willingness to talk in class discussions (Menzel & Carrell, 1999) and by reducing students' anxiety while listening (Chesebro & McCroskey, 2001). Instructor immediacy appears to enhance students' evaluation of teaching effectiveness (Andersen, 1979), an effect that is consistent across various cultures (McCroskey, Richmond, Sallinen, Fayer, & Baraclough, 1995). Using a standardized teacher evaluation instrument, Moore, Masterson, Christophel, and Shea (1996) found that students rated the quality of instruction more positively as the teacher's level of immediacy increased. Immediacy was strongly associated with positive ratings on sections of the instrument that centered on evaluations of faculty/student interaction and lectures/communication.

An instructor's use of verbal and nonverbal immediacy also seems to have a beneficial effect on the affective, behavioral, and cognitive components of student learning. Affective learning refers to how positive or negative the student's interests, attitudes, and values are toward an experience (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). Researchers have consistently found a positive relationship between an instructor's immediacy messages and increased affect. In her ground-breaking study on the impact of teacher immediacy on learning, Andersen (1979) found that nonverbal immediacy is strongly correlated with student affect for the instructor, the course, and the

content studied. A few years later, Gorham (1988) identified verbal immediacy behaviors used by instructors, and reported that verbal and nonverbal immediacy combined are positively associated with students' affect toward the teacher, the behaviors taught, and course content. Subsequent research confirmed these early findings (e.g., Chesebro, 2003; Christophel, 1990; Gorham & Zakahi, 1990; Plax, Kearney, McCroskey, & Richmond, 1986; Titsworth, 2001; Witt & Wheelless, 2001), and extended the conclusions to students from other ethnic groups in a multicultural classroom (Sanders & Wiseman, 1990).

Behavioral commitments are "higher-order affective outcomes... [that are] sometimes discussed as a separate learning domain" (Andersen & Andersen, 1982, p. 111). Such commitments are important learning outcomes in communication instruction related to students' application of effective communication practices. Teacher immediacy increases the possibility that students will engage in the communication skills taught in the course and their desire to enroll in another related course (Andersen, 1979; Christophel, 1990; Gorham, 1988; Sanders & Wiseman, 1990), as well as their long-term commitment to behavioral change (Andersen & Andersen, 1987) and actual changes in their behavior (Comstock, Rowell, & Bowers, 1995).

Cognitive learning involves the comprehension and recall of information and the development of intellectual abilities, such as application, analysis, synthesis, and evaluation (Bloom et al., 1956). Researchers disagree on whether cognitive learning is best measured by students' personal assessments of how much they have learned, by performance scores on various types of tests, by course grades, or GPA. Because of this difference of opinion, the relationship between immediacy and cognitive learning is less

clear than the relationship with other learning domains. Some studies using test scores to measure cognitive learning found no evidence that teacher immediacy increases learning (Andersen, 1979; Chesebro, 2003), while others suggested that immediacy increases some components of cognitive learning, such as recall of information (Comstock et al., 1995; Kelly & Gorham, 1988). Studies measuring students' perceptions of their own learning consistently revealed a positive association between high immediacy and increases in cognitive learning (Gorham, 1988; Gorham & Zakahi, 1990; Richmond, Gorham, & McCroskey, 1987; Sanders & Wiseman, 1990). Witt and Wheelless (2001) found a positive relationship between high nonverbal immediacy and cognitive learning (both perceived and actual recall), but not for high verbal immediacy. They concluded that verbal immediacy "does not operate independently to increase cognitive learning outcomes" (p. 338).

Communication scholars have advanced four models explaining the relationship between immediacy and learning, the Learning Model, the Motivation Model, the Affective Learning Model, and the Arousal Model. The Learning Model assumes that there is a direct causal relationship between the teacher's use of verbal and nonverbal immediacy behavior and the student's cognitive and affective learning. This assumption is inherent in most of the early research on immediacy and learning.

The Motivation Model assumes that the relationship is indirect. This theory argues that teacher immediacy creates higher state motivation to study which results in increased student learning (Christophel, 1990; Richmond, 1990). Frymier (1994) used path analysis to compare these first two models and concluded that the Motivation Model

is the better explanation of the relationship between immediacy and both cognitive and affective learning.

The Affective Learning Model argues that the strong correlation between immediacy and affective learning suggests that student affect may be a causal mediator between teacher immediacy and cognitive learning (Rodriguez, Plax, & Kearney, 1996). Tests comparing this model and the Motivation Model revealed that both models fit the data well. The researchers argued that the Affective Learning Model is theoretically the better explanation because motivation is part of the affective learning domain. Rodriguez et al. (1996) assert, "...the state motivation construct suggests that motivation to learn is captured by the more pervasive affective learning construct.... Affect is by definition, an intrinsic motivator. Positive affect sustains involvement and deepens interest in the subject matter" (p. 297). Teachers who use immediacy behavior create relationships with students that they use to influence them to develop positive attitudes and commitment to the task. Thus, affect eventually leads to greater cognitive learning.

The Arousal Model is based on Mehrabian's (1971) argument that immediacy involves sensory stimulation, or arousal, in the receiver. An increase in arousal leads to attention, which is necessary for memory and recall. Retention of information is the basis of cognitive learning. This theory advances an explanation based on how students cognitively process information, suggesting that the use of immediacy by the teacher will increase student arousal, which causes the students to pay more attention, which will increase their recall of the material being taught (Kelly & Gorham, 1988; Comstock et al., 1995).

In a theoretical critique, Hess, Smyth, and their Communication 451 students (2001) questioned the methodology and claims of many studies relating teacher immediacy to cognitive learning. They argued that while immediacy seems to create liking for the instructor and the course, its impact on students' perceptions of how much they have learned is probably due to a halo effect. The researchers found no relationship between teacher immediacy and exam performance in actual classroom situations.

Immediacy is implicit and relational in nature. The extensive literature investigating instructor use of immediacy in the classroom presents a strong case for the positive effect it has on student affect and behavioral intentions. The nature of its influence on the recall, retention, and synthesis of information is less clear. Regardless of whether the influence of teacher immediacy on learning is direct, indirect, or the result of a halo effect, most scholars assume a linear relationship between immediacy and learning and recommend that teachers should increase their use of immediacy in the classroom to obtain beneficial educational outcomes. However, Comstock et al. (1995) expressed reservations about such recommendations. They argued that because "high immediacy often is accompanied by high arousal, highly immediate teachers may attenuate, rather than stimulate, learning" (p. 252). In their experimental study, students heard one of three lectures by a professional trainer who varied his level of nonverbal immediacy from low to medium to high. Following the lecture, the researchers measured the actual (rather than perceived) impact of each immediacy level on students' affective, cognitive, and behavioral learning. The experiment resulted in an inverted U curvilinear relationship between low, medium, and high levels of immediacy and learning, with the maximum effect at the moderate level. Low and high levels of immediacy negatively impacted

learning. While it is obvious from previous studies that low levels of immediacy would interfere with learning, the research by Comstock and her colleagues suggested that teachers can also impede learning by being too immediate in the classroom. Excessive immediacy may increase students' discomfort, decrease their involvement, and distract their attention from the learning process. This reaction would be consistent with arousal theories advanced by Cappella and Green (1982) and Andersen et al. (1998).

In summary, an instructor's use of immediacy behavior in classroom communication is associated with a number of positive educational outcomes, including reduced apprehension, increased participation, and greater affective, behavioral, and cognitive learning. Various theories, including the direct learning model, the motivation model, the affective learning model, and the arousal model, have been offered to explain the relationship. However, an experimental study showed that when teacher immediacy in the classroom increases to elevated levels, negative learning outcomes may accrue.

Immediacy and Extra-Class Communication

In contrast to the extensive body of research on the effect of immediacy on student-teacher communication within the classroom, relatively little research has examined the impact of immediacy behavior on their interactions outside the classroom. In fact, the phenomenon of out-of-class communication has only recently caught the attention of scholars in instructional communication.

Communication researchers initially defined out-of-class communication by example. Fusani (1994) mentions office visits and encounters before and after class. Others add chance meetings between students and faculty on campus (Jaasma & Koper, 1999, 2002) and advising sessions (Nadler & Nadler, 2000). Some researchers limit their

examination to conversations that last at least 10 – 15 minutes, while others include brief encounters at campus events or in the hallway. Bippus, Brooks, Plax, and Kearney (2001) conceptualized these informal interactions as extra-class communication (ECC) and advanced a specific definition. ECC includes any informal contact between student and teacher beyond the formal in-class instructional process, including interactions that occur “before and after class, in or outside of the physical classroom setting, spontaneously on campus, during official office hours, by appointment, or via technological mediums such as the telephone or the internet” (p. 16). This definition is more comprehensive in that it includes messages exchanged in numerous contexts including email and phone conversations, as well as encounters that take place in the classroom but are not part of formal classroom instruction.

Higher education scholars have explored informal contact between teachers and students to assess its impact on educational outcomes, especially in the areas of student development and retention. Pascarella (1980) asserted that when faculty members become part of a student’s “interpersonal environment” through informal conversations, they serve as important socializing agents, as well as sources of knowledge acquisition and academic skills.

An examination of the educational literature reveals the many benefits that accrue for students and the institution from nonclassroom interactions. Frequent extra-class interaction is positively correlated with students’ intellectual (cognitive and creative) and personal (identity and values) growth (Astin, 1993, Kuh & Hu, 2001). Students who interact frequently with their instructors are more likely to develop similar interests, concerns, and activities as their professors (Kuh, 1995; Pascarella & Terenzini, 1976).

The nature of the interaction may be more important than the frequency. Conversations that focus on ideas discussed in class or give feedback on grades and assignments seem to have more impact on learning (Kuh, 2003; Kuh & Hu, 2001). Communication between the student and faculty member outside the classroom seems to “reinforce or extend the intellectual ethos of the classroom....” (Pascarella & Terenzini, 2005, p. 189).

Even after controlling for pre-enrollment variables, frequent out-of-class communication with teachers is positively associated with students’ academic performance, including higher grade point averages, graduating with honors, and higher Graduate Record Examination (GRE) scores (Astin, 1993; Pascarella, Terenzini, & Hibel, 1978; Terenzini, Pascarella, & Blimling, 1996).

Informal communication between teachers and students is also positively related to students’ increased certainty about their career plans and higher educational aspirations, including the desire to pursue advanced study in graduate or professional school. Professors are considered career role models and/or mentors (Kuh, 1995; Lamport, 1993; Wilson, Wood, & Gaff, 1974). Extra-class communication has a positive influence on students’ general satisfaction with the university experience (Kuh & Hu, 2001; Pascarella & Terenzini, 2005) and satisfaction with the quality of the faculty (Astin, 1993). Finally, informal interaction with professors impacts student retention. Greater frequency of contact is associated with stronger institutional bonds and higher voluntary freshman to sophomore year persistence rates (Pascarella & Terenzini, 1976, 1979, 2005).

Pascarella (1980, 2005) and Lamport (1993) expressed concerns about the causal direction of these associations, indicating that it is not clear whether contact promotes the

outcome, or if the given outcome makes the student more likely to seek informal interactions with the instructor. Pascarella speculated that it could theoretically be a “mutually reinforcing causal loop” in which the contact creates the outcome, which in turn, encourages more interaction.

In addition to the advantages to students and the university, faculty members also obtain personal and professional benefits from extra-class communication. Instructors that frequently interact with students beyond the classroom report that they enjoy the stimulation they receive from students, and they are more likely to say that teaching is a major satisfaction in their life. They also receive higher teacher evaluations and more nominations for “outstanding teacher” awards or “most stimulating course” recognitions (Gaff, 1973; Wilson et al., 1974). Faculty interaction with students outside the classroom is also positively correlated with students’ satisfaction with instructional quality and the perception that professors are student-oriented (Astin, 1993). Teachers who develop good interpersonal relationships with their students tend to receive more favorable teacher evaluations. Cooper, Stewart, and Gudykunst (1982) reported that the quality of a student’s relationship with the instructor accounts for 28% of the variance in students’ perceptions of teacher effectiveness. If students are extending the boundaries of the instructional process to settings beyond the classroom when they evaluate their professors, instructors who interact frequently with students in nonclassroom settings may reap the benefits.

While previous research suggests that informal interaction outside the classroom is beneficial to students, it also reveals that many students do not take advantage of the opportunities for such interactions. The amount of in-class association between the

student and instructor is controlled by specified course hours, but out-of-class communication can vary considerably. Many students have no or very few contacts with instructors outside the classroom. Early investigations found that approximately half of the student subjects never visited an instructor's office during a semester (Wilson et al., 1974; Pascarella & Terenzini, 1979). More recent studies reveal that between 23% (Fusani, 1994) and 40% (Nadler & Nadler, 2000) of students never talk informally with their teachers or visit their offices. Jaasma and Koper (1999) reported that 50% never visited with professors in their offices, and 38% have never even spoken to their instructors in any informal situation. Even in a community college context where classes are smaller and teacher-student interaction is strongly encouraged, Fusani (1994) found that 50% of the students visited with their instructors two or fewer times. Bippus et al. (2003) expanded the scope of extra-class communication to include phone calls, notes, voicemail, email, as well as face-to-face contact when asking their subjects to consider their informal contacts with professors and reported that 68% of their subjects engaged in at least one contact with their teachers.

Researchers have discovered that faculty members who communicate frequently with their students in out-of-class settings possess a number of personality and behavioral characteristics that seem to facilitate these interactions. High-frequency interactors are more open to students' ideas (Pascarella & Terenzini, 1976), more interested in discussing personal concerns, and have a greater commitment to teaching undergraduates rather than working with graduate students and doing research (Gaff, 1973). Student satisfaction and frequency of extra-class communication are positively correlated with the friendliness (Theolipides & Terenzini, 1981), responsiveness (kindness, compassion, and

helpfulness), humor orientation (Aylor & Oppliger, 2003), and trust of the faculty member (Jaasma & Koper, 1999). Teachers who perceive themselves as expressing empathic concern, receptivity/trust, and equality also report higher frequency of extra-class conversations (Nadler & Nadler, 2000). Myers (2004) found that students are more likely to engage in informal interaction with instructors whom they perceive to be credible.

In an extensive study involving undergraduates at six diverse institutions of higher education, Wilson et al. (1974) found that teachers who have a high or moderate amount of extra-class contact with students possess “a fairly coherent set of attitudes and practices” (p. 90) that indicate willingness and desire to interact outside the classroom. They called this trait “social-psychological accessibility.” These teachers are also more likely to faithfully keep their office hours and thus, are more available to students. In general, students seek informal contact with teachers that are physically available and psychologically accessible to them. Bippus et al. (2003) also examined social and physical accessibility in relationship to extra-class communication. They found a positive relationship between students’ perceptions of their instructors’ accessibility and their assessments of the predicted outcome value (helpful, beneficial, rewarding, valuable, etc.) of informal interaction. They also discovered a positive correlation between the instructors’ mentoring abilities and students’ predicted outcome value.

Communication scholars examining the higher education literature on extra-class contact recognized many of the characteristics of teachers who frequently interact with students as typical immediacy behaviors. According to Clark, Walker, and Keith (2002), “Although many of the findings are over 25 years old, they are representative of what are

now called immediacy-type behaviors” (pp. 826-827). Fusani (1994) noted that the informal nature of the office visit tends to increase both student and teacher immediacy and to decrease the power distance between them. In his investigation he found a strong association between teacher immediacy and both the frequency of office visits and student satisfaction with the meeting. He states that “affect for and accessibility to instructor are key concerns and substantially influence ECC rates” (p. 249), and concluded that students seem to want the individualized attention that office visits offer, but they may believe that many teachers are not interested in their problems. Jaasma and Koper (1999) also found that frequency and student satisfaction, as well as the length of the visit, are positively related to the students’ perceptions of instructor immediacy. Instructors who perceive themselves to have high levels of immediacy, as well as empathy, receptivity, and equality, report higher ratings for quality, satisfaction, and value of out-of-class interactions. They also believe that students value the interaction (Nadler & Nadler, 2000).

Some researchers have concluded that students evaluate their instructor’s in-class behavior for clues to their interest in, and availability for, out-of-class discussions (Clark et al., 2002; Jaasma & Koper, 1999; Wilson, et al., 1974). Students may assume that if instructors are immediate in the classroom, they are more likely to be available for informal contact outside the classroom. In contrast, Bippus et al. (2003) posited that students form their impressions of a teacher’s warmth and friendliness specifically in extra-class encounters. They found that students tend to seek out ECC when they anticipate that doing so will be personally rewarding.

Immediacy and frequency of extra-class communication appear to function differently for male and female faculty. Bennett (1982) reported that both male and female students have more scheduled office visits with female instructors than with male instructors, are more likely to drop by casually without appointments, have more casual conversations with them, and are more likely to call them at home. Fusani (1994) indicated that both female students and female teachers enact higher immediacy behaviors in relationship to out-of-class interactions than male students and instructors. In contrast, Nadler and Nadler (2000) found that the sex of the instructor does not influence the frequency of ECC but it does influence the amount of time spent in those encounters. Female faculty reported significantly more time (about two and a half more hours per week) spent in out-of-class interaction with students than male faculty reported. Female instructors also reported higher quality and more perceived value for those interactions. A later study showed that male students engage in more out-of-class visits with their instructors than female students do, but there is no difference in the length of those visits (Nadler & Nadler, 2001).

Nadler and Nadler (2001) also discovered that there is a definite same-sex preference in extra-class interactions. Both sexes seem to be more comfortable with instructors of their own sex. Female students report more satisfaction and higher evaluations of their female instructors, and they perceive female instructors as more trustworthy and more competent than male students do. Female students are also more likely to discuss class-related matters, personal matters, and general academic matters in out-of-class interactions with female teachers than with male teachers. Men prefer to discuss class-related topics and academic matters with male teachers. The authors

expressed concern for female students who may feel uncomfortable visiting with male professors in their office since there are likely to be fewer female professors in the faculty. While female students generally make up at least half of the undergraduate students on college campuses, two-thirds of the instructors at the university involved in the study were male.

Finding the evidence from these studies on sex differences conflicting, Jaasma and Koper (2002) tried to clarify the issue by examining the relationship between students' perceptions of male and female teachers classroom immediacy behavior and the frequency of their extra-class communication. Their investigation suggested that students perceive their female instructors to be more immediate than their male instructors. Students also have more frequent office visits, engage in longer visits, spend more time discussing coursework, and are more satisfied with the office interactions when their instructors are more immediate in class.

Informal student-faculty interaction appears to be an important element in the academic experience, having benefits for both students and professors. However, the number of students that are involved in ECC seems to be somewhat limited. As a result, many university scholars and administrators encourage increased student-faculty interaction beyond the classroom setting as a means of creating more active student involvement in the educational process and increasing the quality of educational programs. Writers frequently recommend that administrators and teachers be made more aware of the benefits of out-of-class interaction and urge them to promote more frequent informal contact with students (see Lamport, 1993; Pascarella, 1980; Terenzini, Pascarella, & Bliming, 1996). Fusani (1994) encouraged teachers to use ECC as part of

their teaching strategy by strongly encouraging, or perhaps even requiring, students to have a midterm office conference. Bippus et al. (2003) suggested that orientation programs should inform incoming students of the benefits of ECC and that department chairs should encourage faculty to include statements in their course syllabi relating the benefits of ECC and encouraging students to take advantage of the many methods of informally interacting with their instructors.

All of the studies on extra-class communication and immediacy describe the teacher's behavior as high or low, rather than distinguishing between low, moderate, and high levels of immediacy. However, it appears that there is concern that some of the immediacy in teacher-student interactions outside the classroom could be considered excessive. High immediacy behaviors are ambiguous and may be open to various interpretations, especially in private settings such as a professor's office. Garlick (1994) suggested that some immediacy behaviors, such as touch or close proximity, could be perceived as similar to subtle forms of sexual harassment. "Well-meaning teachers attempting to decrease relational distance between themselves and their students might find themselves inadvertently violating their students' privacy, causing them to experience discomfort and to evaluate the teacher's behavior as inappropriate" (p. 154). Lannutti, Laliker, and Hale (2001) investigated touch behavior that occurred in an opposite-sex professor's office, and discovered that male students' are more comfortable with a female professor touching them than female students are with a male professor touching them. "Women's evaluations grow more negative as the immediacy of touch increases, regardless of professor reward value" (p. 80).

Overall, while the research on extra-class communication is limited, previous studies have revealed that informal teacher-student contact is beneficial to both students and faculty members. However, students often fail to take advantage of opportunities to interact with their professors. Teachers that frequently interact with students in out-of-class settings tend to be more immediate, although there appears to be some concern that instructors could be too immediate in informal settings.

Research examining excessive teacher immediacy both in and outside the classroom raises the question of how more of a good thing like teacher immediacy could be detrimental to learning and student-teacher relationships. This dissertation argues that the meaning a student gets from the message changes when instructors significantly increase their level of immediacy. The literature on message interpretation provides us insight into what this meaning may be.

Message Interpretation

Message interpretation refers to the "meanings attributed by a target to a specific message (or set of messages) within a communication context, including how the recipient of the message interprets the source's relational intent. Additionally, interpretation of messages is not necessarily limited to connotative meanings, but may also include more denotative aspects of meaning" (Edwards, 1998, p. 54). Since all messages are somewhat ambiguous, listeners make assumptions about meaning that may be biased by previous experiences and expectations. Certain characteristics of the receiver and sender, as well as the context in which the message is exchanged, influence the meaning received.

Previous research on message interpretation reported that negative emotions in the receiver, such as anger (Dix, Reinhold, & Zambarano, 1990), hostility (Epps & Kendall, 1995), and high anxiety (MacLeod & Cohen, 1993), can create a bias toward negative interpretations and responses to ambiguous messages. The receiver's personality also influences the inferences drawn from a message. Lonely individuals are more likely to perceive unclear messages from others as rejection and to have greater communication difficulty. A verbally aggressive personality is associated with interpretations of rejection and criticism in vague but somewhat positive interpersonal messages (Edwards, Bello, Brandau-Brown, & Hollems, 2001). Having a sense of humor is related to humorous interpretations of ambiguous messages directed toward self, although the topic influences that interpretation. Women tend to interpret messages related to their weight defensively, and men perceive messages related to mental and physical errors defensively. Messages about one's clumsiness are viewed as more humorous than messages about one's work (Futch & Edwards, 1999). Edwards and Bello (2001) examined connotative meanings associated with equivocal messages, which are consciously designed to be vague responses to difficult or awkward situations. Equivocal messages are interpreted as more polite but not as honest as direct criticism. These effects are stronger for women than they are for men. However, in ambiguous situations equivocal messages are perceived as less competent than unequivocal messages.

Communicated messages include nonverbal symbols in addition to the words spoken. The receiver's interpretation of the message will be impacted by the nonverbal behavior that accompanies the verbal symbols. Mehrabian (1971) theorizes that nonverbal behavior communicates feelings and attitudes and that the receiver assigns

meaning to this behavior along three fundamental dimensions: liking, dominance, and responsiveness, or some combination of these. Nonverbal cues are particularly important in defining the relationship between interactants. “Relational messages are those verbal and nonverbal expressions that indicate how two or more people regard each other, regard their relationship, or regard themselves within the context of the relationship” (Burgoon & Hale, 1984, p. 193). Burgoon and Hale identified 12 dimensions of relational messages, including intimacy (which involves affection, inclusion, intensity of involvement, depth and trust), dominance, emotional arousal, composure, similarity, formality, and task-social orientation. Nonverbal immediacy communicates a range of these relational dimensions as it changes from low to medium to high, including formality or lack of involvement, inclusion, intimacy, and at the highest level, dominance (Burgoon & Hale, 1987). Receivers within a given social community tend to assign similar relational meanings to touch, conversational distance, and postural openness, all of which are nonverbal behaviors within the immediacy cluster. However, the receiver’s interpretation of the meaning may depend on the sex, attractiveness, and status of the sender and is usually consistent with common stereotypes (Burgoon, 1991). Higher levels of immediacy are associated with perceptions of intimacy and dominance and a lower level of immediacy is interpreted as formality and distance in a relationship (Burgoon & LePoire, 1999). High immediacy, particularly touch combined with increased eye contact and close proximity, is interpreted as dominance when exhibited by both men and women. However, men are seen as even more dominant than women. Women are perceived as more affectionate and inclusive than men when using high immediacy nonverbals (Burgoon & Dillman, 1995).

Sex Differences in Message Interpretation

Society assigns social meanings to biological sex that influence assumptions about how a person communicates with others. Disagreement exists, however, on the extent of the difference that exists between female and male communication styles. Some scholars view these dissimilarities as fundamental, dichotomous differences, whereas others theorize that the differences are more tenuous.

Maltz and Borker (1982) contend that boys and girls grow up in different communicative subcultures and as a result, develop fundamental stereotypes of appropriate gender behavior during childhood. This early enculturation leads men and women to develop different interaction styles. Women are more likely to use words to give support, maintain social interaction, and express inclusion and caring in relationships. Males are more likely to communicate to express dominance, challenge, and control in conversation. When individuals have conversations with others, they carry these gendered patterns into their interactions. Tannen (1990) says that men and women hear different meanings in the same message. Women interpret interpersonal messages as expressions of solidarity, intimacy, and affiliation. Men interpret them as expressions of control and dominance. Wood (2005) argues that gender is a social construction in that meaning is conferred on biological sex by the time and culture in which one lives. While innate differences may be small, the unique social circumstances of men and women as groups create and perpetuate constructed role behaviors and power experiences. These social dissimilarities are reflected in the way they communicate (Wood & Dindia, 1998).

Canary and Dindia (1998) contend that there are more similarities than differences in the way men and women communicate. “We believe that sex similarities

provide a context, a backdrop, for sex differences. Importantly, this backdrop offers ways to contrast communicative differences between men and women” (p. x). According to this perspective, the influence of sex differences on message interpretation is likely to be dependent on the type of relationship between the participants and the context in which the message occurs.

In her work on message interpretation, Edwards (1998) examined the influence of biological sex and gender role identity on the meaning received. Gender role refers to the masculine or feminine psychological orientation of a person. Edwards argued that gender role is as important as biological sex in interpreting meaning. She found that sex of the source, sex of the recipient, the communal gender role, and masculine values interact to influence the interpretation of messages as controlling or supportive, and that how the message is interpreted depends on the situation. She also determined that sex affects the difficulty of communication, with opposite-sex communication being more difficult than same-sex communication. Edwards (2000) also investigated how men and women interpret relational messages of affiliation and dominance. Her study reported that, consistent with typical stereotypes, messages from female sources are more likely to be interpreted as affiliation than the same messages from male sources. However, receiver gender role and the situation influence interpretations of dominance. Edwards believes that dominance and affiliation “may be competing frames for interpreting situations but they are not conceptual opposites” (p. 19). In some situations receivers interpret the message as either affiliation or dominance, but in other situations they recognize both affiliation and dominance. In recent research, Edwards and Hamilton (2005) compared Tannen’s model of sex differences in interpretations of messages from

male and female sources to a more complex model that included the psychological gender of the receiver. This comparison resulted in a revised model of gender communication that predicts that the gender role of the recipient has a greater influence on interpretations of cooperation than biological sex, and that both nurturance and dominance reduce cross-sex communication difficulty. The researchers also found that in most situations male sources are not seen as less cooperative than female sources. However, in a work context, a bragging male is perceived as less cooperative than a bragging woman.

Whether men and women actually communicate different messages or not, most people believe that they do. A cognitive perspective suggests that individuals develop schemas, or organized knowledge structures, that categorize people into social groups based on age, sex, race, etc. This process results in the development of stereotypes which influence how information about people is processed, stored, interpreted, and recalled (Hummert, 1999; Edwards & McDonald, 1993). Sex-based stereotypes become norms for interpreting messages from men and women. These stereotypical expectations bias the receiver's assumptions about intended meaning. "Adolescents and young adults (vs. older adults) more often adhere to stereotypes of men and women" (Canary & Dindia, 1998, p. 7).

Hummert's research (1994, 1998, 1999) on stereotypes associated with aging informs our understanding of how stereotypes based on biological sex may be activated in high immediacy student-teacher interactions. She argues that the "self-system" of the perceiver, including their age, cognitive complexity, and past experiences, physical appearance and traits of the other person, and cues in the social context activate

stereotypes which influence interpersonal communication. Using a similar perspective, I am suggesting that students will categorize their professors into social groups (woman, teacher, etc.) based on previous educational experiences and the university context, and that these categories activate biases that guide the interpretation process. Because of the public, hierarchical nature of the teacher-student relationship, gender stereotypes are likely to operate more strongly than they would in the realm of personal relationships. Thus, in the academic context, students are likely to make stereotypical assumptions about the meaning of the message based on the sex of the teacher.

The tendency to stereotype teachers based on biological sex impacts students' assumptions about their professors' behavior in everyday interactions. Students expect female teachers to have a warm communication style, to be encouraging and less authoritarian in their teaching than men (Bennett, 1982). They are also more likely to expect female professors to be available for out-of-class contact than male professors (Cooper et al., 1982). Both male and female students rate female faculty as caring, friendly, understanding, and willing to give frequent attention to academic problems and personal needs. Male teachers, on the other hand, are viewed as professional, in control, and challenging. This evaluation of male professors is rated as effective teaching behavior by male students, but female students view many male professors as lacking interest in the student as an individual (Bachen, McLoughlin, & Garcia, 1999). Since stereotypes based on biological sex are prevalent in academia, students are likely to be influenced by those stereotypes when they interpret the meanings of high immediacy messages from male and female teachers. Also, the sex of the student may interact with the sex of the source to affect the interpretation of the message.

Research on message interpretation has examined the influence of emotions, personality, equivocation, sex, and gender roles on inferences about meaning. My study suggests that stereotypes related to biological sex will operate in the academic context to influence interpretation of the high immediacy messages.

Inappropriate Messages and Sexual Harassment

Not only will students interpret relational meanings from the teachers' high immediacy behavior, they are also likely to make assumptions about the appropriateness of these messages. High levels of teacher immediacy may be perceived as an invasion of the student's privacy. Previous research examining privacy in various types of relationships indicated that the teacher-student relationship is the most sensitive to psychological, informational, and nonverbal privacy violations (Burgoon et al., 1989). Garlick (1984) had students rate numerous immediacy scenarios according to how appropriate or inappropriate the behavior is in an opposite-sex student-professor relationship and how comfortable or uncomfortable the student would feel. His results indicated that female students are more likely than male students to interpret immediacy behaviors from opposite sex professors as inappropriate and uncomfortable. Since immediacy behavior communicates personal interest and closeness, students who perceive high immediacy behavior as inappropriate, may also perceive it as sexual harassment.

Defining sexual harassment is a complex issue due to a lack of agreement on what behaviors actually involve harassment. Prior to the seventies, no term existed for the behavior that has become known as sexual harassment (Wood, 2005). Legally, discrimination based on sex was outlawed in Title VII of the Civil Rights Act of 1964.

However, sexual harassment was not defined until the Equal Employment Opportunity Commission issued guidelines in 1980. *Quid pro quo* harassment occurs when a person with authority uses rewards or punishments to acquire sexual favors from a subordinate. *Quid pro quo* is the most widely known type of sexual harassment, but it is also the least common. More common incidents of sexual harassment involve the creation of a hostile work environment. A sexually hostile environment was defined by the Supreme Court in 1986 as an unwelcome pattern of behavior that is sexual in nature and that any reasonable person would find offensive, intimidating, or that interferes with one's ability to perform his or her job. Hostile environments can be created by peers as well as by persons in authority. In 1981 Title IX defined the school as the student's workplace, thus extending the sexual harassment laws to students as well as employees. The specific application of these laws is continually being defined and redefined by the courts (Hagedorn, 1999; Wood, 2005).

Most universities have developed policies relating to sexual harassment that define it as unwelcome sexual conduct that involves coercion or a misuse of power (Andsager & Bailey, 1997; Runtz & O'Donnell, 2003). Universities have also developed reporting policies but most students are reluctant to report harassment incidents, either because they are not sure of the procedure, do not think anything would be done about it, or they fear retaliation (Adams, Lottke, & Padgitt, 1983).

Some scholars define sexual harassment as a continuum of behaviors, moving from gender harassment, such as degrading remarks about women, to implicit suggestive behaviors, such as inappropriate touching, to more blatant behaviors, including persistent sexual attention or coercion (Mongeau & Blalock, 1994; Stockdale, Berry, Schneider, &

Cao, 2004). Hagedorn (1999) depicts sexual harassment as a gender abuse continuum that ranges from degrading comments and sexual jokes to sexual teasing and unwanted touching to sexual bribery and rape. Most scholars believe that sexual harassment is determined by the impact of the behavior on the victim not on the intent of the perpetrator (Booth-Butterfield, 1989; Garlick, 1994; Hagedorn, 1999; Mongeau & Blalock, 1994). “Thus, a necessary condition for the perception of harassment is that receivers must view themselves as targets of sexual communication which they wish to avoid” (Booth-Butterfield, 1989, p. 264). This position is based on the “reasonable person” argument. Courts originally conceived of this argument as the “reasonable man” (generic) standard. More recently questions have been raised as to whose perspective counts in harassment cases. A reasonable woman might have a different opinion about what she considers offensive or harmless. The issue of what behavior is perceived as sexual harassment is open to interpretation based on the physical setting, the relationship of the individuals involved, and the impact it had on the victim (Runtz & O’Donnell, 2003). Much of the confusion about sexual harassment is caused by the fact that behavior women find offensive, may be perceived as flirting or flattery by men (Hagedorn, 1999).

Reilly, Carpenter, Dull, and Bartlett (1982) found general agreement among male and female undergraduates, graduates, and faculty as to what constitutes the extremes of sexual harassment. An encounter that clearly represents harassment includes actions or comments of male instructors that suggest coercion, including the use of physical force or threats relating to the grades of the student, and behaviors that were unusually intimate or sexually suggestive. More disagreement exists about implicit behaviors such as touching, compliments, and moving closer. Adams et al. (1983) identified eight categories of

sexual harassment including sexist comments, undue attention, verbal sexual advances, body language, invitations, physical advances, explicit sexual propositions, and sexual bribery. However, students do not necessarily recognize all of these as sexual harassment. Almost all students believe that explicit propositions, physical advances and bribery constitute sexual harassment, but less agreement exists about ambiguous behaviors. The majority of both male and female students believe that body language (standing too close, looking at the other's body), verbal sexual advances, and continuing invitations for a date are sexual harassment, with female students feeling more strongly than males. Runtz and O'Donnell (2003) reported that, when presented with scenarios that included potentially harassing behaviors in a professor-student interaction, women are more likely than men to perceive the behavior as sexual harassment. This interpretation occurs whether the vignette involves a male student and female professor or a female student and a male professor. Comparing the perceptions of college students and full-time workers, Booth-Butterfield (1989) concluded that people that have experience in the work force are more cognizant of what behavior constitutes sexual harassment. Undergraduate males, particularly, do not seem to interpret potentially offensive situations as threatening, whereas males with work experience are almost as likely as women to recognize harassing communication behavior. Beliefs about one's ability to control situations and amount of work force participation influence awareness of sexual harassment.

People commonly assume that sexual harassment situations only involve men harassing women. However, in 1998 the Supreme Court recognized that either sex can be victimized (Stockdale et al., 2004). Harassment of men occurs more frequently than previously thought, although there is still hesitancy on the part of men to report

harassment by other men. In a survey of federal government employees, 19% of the men indicated that they had experienced unwanted sexual attention, but only 6% had filed grievances. Most of these men had been harassed by women, but 21% said that other men were the perpetrators. Only 1% of the women indicated that they were harassed by other women (U. S. Merit Systems Protection Board, 1995). In school settings men seem to be unsure about whether ambiguous behaviors in either same-sex or opposite-sex scenarios are sexual harassment (Runtz & O'Donnell, 2003). Men are also more likely than women to experience rejection-based harassment, which involves teasing designed to humiliate them. However, when a man experiences rejection behavior from a male source, it is less likely to be perceived as sexual harassment than when a man receives sexual approach behavior from a female source (Stockdale et al., 2004).

Although most academic institutions have enacted policies designed to eliminate sexual harassment and to facilitate reporting, a widespread problem still exists in educational environments. Hagedorn (1999) argues that many characteristics of the university create an environment conducive to sexual harassment. The popularity of fraternity housing, the worship of male athletes, the prevalence of men in administrative and professorial positions, and the sexualized social atmosphere of the university are extenuating circumstances that contribute to acceptance of sexually harassing behaviors on campuses. Andsager and Bailey (1997) cite the political power of the graduate professor or advisor and the close working relationship between professors and students as potential causes of sexual harassment in graduate programs.

Researchers report that 25% to 75% of female students have experienced some form of sexual harassment. In one study, 65% of the female students reported that they

had experienced sexist comments and over 30% had received body language messages implying sexual interest. Interestingly, the same percentage (3%) of men and women indicated that they had encountered blatant sexual propositions and sexual bribery. Female students reported that these behaviors usually involved a male professor or teaching assistant while they were enrolled in that person's class. Males indicated that the advances were made by both female and male faculty members (Adams et al., 1983). Nearly 15% of the graduate students in a mass communication program reported receiving sexual advances from faculty members (Andsager & Bailey, 1997). Complicating the problem of determining how pervasive sexual abuse is on campuses is the fact that most sexual harassment is not officially reported to campus administrators (Adams et al., 1983)

Many communication behaviors that occur in academic settings, including high immediacy behaviors, have the potential of being perceived as implicit sexual advances and, hence, contributing to a hostile learning environment for the student. Garlick (1994) stated, "Implicit harassing behaviors and immediacy behaviors are so similar in nature that misinterpretation can easily occur" (p. 137). In contrast, Bursik (1992) concluded that men and women have similar perceptions of what behavior is sexual harassment, especially if the harasser is male and if there is a power difference such as in a professor-student relationship. Mongeau and Blalock (1994) also saw the possibility for overlap between immediacy and harassing behaviors. In a direct comparison of immediacy behaviors and sexually suggestive harassing behaviors, students were clearly able to distinguish between the two. This study also showed that female students evaluate harassment descriptions as less appropriate than male students do and can more readily

distinguish between immediacy behavior and sexually implicit behavior. Contrary to the Garlick study, this research indicated that students do not misinterpret immediacy behavior. However, the study used moderate levels of immediacy, not high immediacy behavior. Their investigation also showed that past behaviors of the professor influenced interpretations in that repeated suggestive messages create a pattern of behavior that is more likely to be interpreted as an attempt to redefine the relationship.

Personally invasive nonverbal behaviors, such as close proximity and touch, are specific aspects of immediacy that seem to be problematic (Comstock et al., 1995; Garlick, 1994; Mongeau & Blalock, 1994). Arguing that expectancy violations theory predicts that touch may be perceived negatively in some relationships and positively in others, Lannutti et al. (2001) examined students' interpretations of three touch conditions, no touch, arm touch, and thigh touch, in opposite-sex student-teacher interactions in an office setting. They found that female students view any touch from a male professor as a violation of expectations and it negatively impacts their evaluation of the teacher. Women also indicate that as touch immediacy increases so does their tendency to view the behavior as sexual harassment. Males are more accepting of an arm touch by a low reward female professor, but they negatively evaluate both low and high reward professors in the thigh touch condition. They are also less likely to view any of the touch behaviors as sexual harassment. The authors suggested that "male students view touch from a female professor as nurturing while female students do not view touch from a male professor in this way" (p. 80). This study did not examine same-sex interactions.

To review, sexual harassment may be *quid pro quo* in which sexual favors are solicited in return for receiving rewards or avoiding some harm, or may involve the

creation of a hostile environment. Sexual harassment may involve both male and female victims and may occur in same-sex or opposite sex encounters. Females encounter more sexual harassment on university campuses than males, but male students also experience harassment. The harasser is most likely to be a male instructor of the victim. Male and female students agree on more obvious incidents of sexual harassment, but tend to disagree on whether subtle forms of inappropriate behavior should be called sexual harassment. This dissertation research examines the question of whether students will interpret excessive teacher immediacy in classroom and out-of-class encounters as sexual harassment.

Summary

This review of the literature has summarized the research on teacher immediacy in the classroom setting, teacher immediacy in out-of-class settings, and factors influencing message interpretation. Immediacy messages generally convey a desire for interaction and relationship. A teacher's use of immediacy behavior is associated with many benefits for the student, the instructor, and the university. However, when the immediacy behavior becomes too high, negative results occur. This change in the impact of immediacy on the student may be due to changes in the way the student interprets the immediacy message.

Verbal and nonverbal messages are often ambiguous, and thus, are open to various interpretations. Factors relating to characteristics of the source of the message, the receiver of the message, and the context in which the message takes place impact the meaning received by the listener. Previous research on message interpretation has examined the influence of sex and gender role on perception of ambiguous messages.

Although some of the research has investigated interpretations of immediacy messages in educational settings, it has not tested interpretations of excessive immediacy.

The present research examines how the sex of the message source, sex of the message recipient, and the setting in which the message took place influences the relational meaning that students get from teachers' high immediacy messages, and their interpretations of message appropriateness. The following chapter will discuss the relationship between these variables and the rationale for the hypotheses proposed in this study.

CHAPTER 3

RATIONALE AND HYPOTHESES

The previous chapter reviewed the literature that provides the basis for this study on students' interpretations of their teachers' high immediacy behavior. This chapter discusses how the source of the message, the recipient of the message, and the setting in which the message takes place are related to that interpretation and provides the rationale for the hypotheses that predict the relationship among the variables.

Immediacy is a cluster of verbal and nonverbal cues used in social interaction to promote psychological closeness, express liking, and encourage interaction. They are approach behaviors that invite others into a relationship (Mehrabian, 1971). Immediacy is communicated nonverbally by vocalics (such as using a pleasant, expressive voice), kinesics (including animated facial expression, direct body orientation, and a forward lean), haptics (arm or shoulder touch), proxemics (decreased physical distance), and eye contact (Andersen & Andersen, 1987). Immediacy can also be communicated verbally by using personal pronouns, inclusive language, and invitations to interact (Gorham, 1988).

Mehrabian's original work (1969) discussed immediacy in political campaigns, selling and advertising, psychotherapy, and romantic contexts. Much of the communication research on immediacy has focused on the instructional context. Instructional communication literature operationalizes immediacy as the presence of these behaviors (high immediacy) or their absence (low immediacy). However, some researchers recognize that the level of immediacy can be manipulated from essentially none to extremely high by increasing the amount and intensity of the nonverbal behaviors

used by the source (see Andersen & Andersen, 1982, 1987; Andersen et al., 1998; Burgoon & Hale, 1988; Comstock et al., 1995). For example, Comstock et al. (1995) operationalized teacher immediacy as low, moderate, and high. The low immediacy condition included no eye contact, reading from a script, not smiling, a monotone voice, teaching from behind a podium, and no touching. The moderate level of immediacy included approximately 30% eye contact and smiling, moderate volume and inflection, moving about in front of the students, no touching, and maintaining a distance of 1.5 feet from the students. The high immediacy condition included 60% eye contact and smiling, speaking without notes, direct interaction with the students, using an expressive voice, walking up and down the aisle, touching several students on the shoulder or arm, and moving closer than 1.5 feet to some of the students. The current study focuses on immediacy behaviors that fall at the high end of the immediacy continuum.

Previous research has associated teacher immediacy with important educational outcomes in both in-class and extra-class contexts. These benefits include increased affective, behavioral, and cognitive learning, increased participation in class, student satisfaction, and perceptions of effective teaching. Both students and educational programs seem to profit from friendly, caring, engaged instructors who seek positive relationships with their undergraduates. As a result of the abundant research revealing the positive effects of immediacy, many researchers encourage teachers to increase their immediacy when communicating with students inside and outside the classroom.

However, in spite of the enthusiasm for increased immediacy, several scholars have warned that problems may occur when an individual attempts to intensify his or her immediacy level. Mehrabian (1971) states, "...excessive immediacy is undesirable" (p.

79) and warns that it can result in unpleasant consequences. Negative responses to high immediacy conditions are likely to occur when the interactants have little choice in the situation, such as in restricted or crowded circumstances. When immediacy becomes extensive, such as too much eye contact or invasion of one's personal space, high arousal levels occur and the behavior may be interpreted as aggression (Mehrabian, 1971). Andersen and Andersen (1982) noted that students may misinterpret immediacy as intimacy. This misunderstanding is more likely if the teacher's immediacy behavior is excessive or directed to only select individuals. High levels of immediacy negatively impact instructional outcomes, resulting in a decrease in student learning (Comstock et al., 1995). Some common immediacy behaviors seem to create feelings of discomfort and perceptions of inappropriateness, especially when used outside the formal classroom. They may even be interpreted as subtle forms of sexual harassment (Garlick, 1994). When immediacy involves unexpected touching during office visits, consequences can include negative evaluations of the professor's expertise and character, as well as assessments of sexual harassment, especially by female students (Lannutti et al., 2001).

The conclusions of these studies raise questions about how immediacy, which has been associated with so many beneficial outcomes, could be detrimental to student-teacher interactions. My contention is that when the level of teacher immediacy becomes high, the students' interpretation of the message changes, including their perception of the relational meanings and the appropriateness of the behavior. Even if the teacher's motive for using high immediacy is to reap more of the proven instructional benefits, the student's interpretation of the teacher's motive is more important in terms of whether those benefits will be accomplished. Consequently, this study will investigate teachers'

high immediacy behavior from a message interpretation perspective, and present hypotheses related to how students may interpret the increased immediacy.

Message interpretation refers to the meaning that a receiver assigns to a specific message within a particular communication context, including the denotative and connotative meanings, as well as the relational intent of the source (Edwards, 1998). The first area of concern in the present study is interpretation of relational intent that students get from their teacher's high immediacy messages. Relational messages are messages that define the nature of the relationship between two people and indicate how they feel about themselves and the other person (Burgoon & Hale, 1984). Burgoon and Hale identified a variety of dimensions along which people understand their social relationships, with the primary themes being intimacy, dominance, and emotional arousal. Nonverbal signals are frequently used to convey relational meanings.

The relational communication theme that seems to be most applicable to immediacy in student-teacher relationships is intimacy. Intimacy involves, among other things, affection, involvement, and inclusion, which are also the essential elements of immediacy (Burgoon & Hale, 1984). The many studies showing a positive association between immediacy and affective learning suggest that immediacy is related to affection and affiliation in teacher-student relationships (e.g. Andersen, 1979; Chesebro, 2003; Christophel, 1990; Gorham, 1988). Teven (2001) noted that students perceive immediate teachers as caring, a term that seems more appropriate for the student-teacher relationship. He argued that immediacy provides the behavioral indicators of caring.

Power is also a dimension of teacher-student relationships (McCroskey & Richmond, 1983; West, 1994). Burgoon and Hale (1984) used the term dominance, or

control, to refer to relational power. Teachers often exert control over students to define, dictate, or limit their actions. Previous research indicates that high levels of immediacy can convey dominance in relationships (Burgoon & Dillman, 1995; Burgoon & LePoire, 1999), and that, generally, the higher status person has the privilege of increasing the degree of immediacy (Mehrabian, 1971). Thus, an increase in the teacher's level of immediacy could also be interpreted as an attempt to control the student.

Caring and control appear to be conflicting interpretations. However, Burgoon and Dillman (1995) argued that most nonverbal relational messages occur in "packages of cues" (p. 64), as immediacy does, and that increased immediacy behavior can be interpreted as dominance, affection, and affiliation. Edwards (2000) also concluded that interpretations of affiliation and dominance are not "conceptual opposites" (p. 19), and receivers may perceive messages as either affiliation or dominance or, in some situations, as a combination of the two meanings. This outcome was particularly evident in her research in a situation involving a bragging coworker that was interpreted as both an attempt to control and connect.

Message interpretation research suggests that characteristics of the source, the receiver, and the situation influence which meaning is received (Edwards, 1998, 2000). These characteristics appear to activate schemas in the receiver that bias their understanding of the message (Edwards & McDonald, 1993). During their years of educational experiences, children develop schemas related to teachers and academic contexts that form the cognitive basis of their expectations of teachers and shape their interpretations of the teachers' messages. Thus, it is likely that either caring or control could be decoded from the high immediacy behaviors.

Stereotypical expectations relating to the sex of the teacher may be an important factor influencing the students' interpretation of relational intent. Gender research informs us that messages from men and women are interpreted differently due to cultural values and beliefs associated with what it means to be male or female. Women are generally thought to be nurturing, supportive, and concerned with relationships. Men are in control, competitive, and task-oriented. Stereotypes related to appropriate gender behavior develop in childhood, probably from early family influences and societal and media sources. They persist into adulthood, internalized as gender schema, and increase the likelihood of stereotypical message interpretations (Wood, 2005). Traditional gender expectations still dominate educational settings. Both male and female students want their female professors to be warm, nurturing, and supportive, but they do not expect the same qualities from their male professors. Male professors are expected to be competent and professional (Bachen et al., 1999; Bennett, 1982).

These arguments suggest that students will consider the sex of the teacher when interpreting the relational meaning of a teacher's high immediacy messages. Both female and male students are likely to stereotype the source of the messages, assuming that female teachers are caring and concerned, while male teachers are communicating dominance or trying to control them. Therefore, I propose the following hypotheses:

H1: Students interpret high immediacy messages from male teachers as more controlling than those from female teachers.

H2: Students interpret high immediacy messages from female teachers as more caring than those from male teachers.

The second area examined in this research involves students' evaluations of the appropriateness of the high immediacy behavior. As immediacy increases in intensity, interpretations relating to its suitability become salient. These perceptions are particularly relevant when there is a power difference between the source of the message and the recipient, as in the professor-student relationship. Previous research implies that excessive levels of immediacy may create feelings of intimacy that students are likely to find unsettling. Comstock et al. (1994) reasoned that high immediacy messages lead to excessive student arousal that becomes distracting to the learning process. Other researchers have theorized that immediacy behaviors convey intimacy in relationships since it increases sensory stimulation (Andersen, 1999; Mehrabian, 1971). These assumptions suggest that students may interpret excessive immediacy messages as hints of the teacher's desire for a more intimate, possibly inappropriate, redefinition of the relationship.

Garlick (1994) argues that immediacy behaviors, such as close proximity and touching, are similar to subtle sexual harassment behaviors, and that female students perceive these actions from male professors as inappropriate and uncomfortable. On the other hand, male students are less likely to report that similar behaviors from female professors are inappropriate or make them uncomfortable. Garlick (1994) speculates that male students may be more comfortable with female teachers' immediacy behavior because they view it as flattering. Another explanation could be that since female teachers have traditionally dominated education in American culture, boys and girls in lower grades are often conditioned to view the teacher in a mothering or caring role (Vare, 1995). This schema may carry over into higher education classrooms, influencing

how female teachers are perceived. Based on these studies, female students appear to be more likely than male students to interpret high immediacy used by an opposite-sex professor as inappropriate behavior.

Researchers have not examined immediacy behavior in same-sex student-teacher relationships. In the United States men are not as likely as women to touch, stand in close proximity to each other, or publicly exhibit messages relating to closeness (Derlega, Lewis, Harrison, Winstead, & Costanza, 1989; Stier & Hall, 1984). In self-reported and observational studies, researchers concluded that the fear of being perceived as homosexual motivates men to avoid touching other men, except for handshakes (Burgoon, 1991; Derlega et al., 1989; Floyd, 2000; Roese, Olson, Borenstein, Martin, & Shores, 1992). Floyd and Morman (2000) theorize that homophobia leads people to avoid affectionate behaviors in same-sex relationships and that this fear is much stronger in men than in women. A male instructor's use of high immediacy behaviors is likely to generate negative reactions from male students, possibly interpretations related to homophobia. In contrast, women are more likely to stand in close proximity to other women and are more comfortable touching each other (Andersen, 1999; Derlega et al., 1989; Roese et al., 1992; Stier & Hall, 1984). Expressions of female same-sex affection are viewed more favorably than the same expressions enacted by men (Floyd, 2000). Established cultural norms relating to same-sex interactions and the likelihood of sexual connotations should be expected to influence how high immediacy behaviors from female and male teachers are interpreted. These arguments suggest the following hypotheses.

H3: Students interpret high immediacy messages from male teachers as more inappropriate than those from female teachers.

H4: Male students interpret high immediacy messages from male teachers even more negatively than female students do.

Communication takes place within a given context and any analysis of the communication transaction should consider the impact of that context. Previous message interpretation literature suggests that the situation in which the encounter takes place is likely to influence the interpretation of the message (Edwards, 1998, 2000). Therefore, students' interpretations of teachers' high immediacy behavior will be compared in three different university settings, the classroom, the professor's office, and the student center.

The most common setting for student-teacher communication is the classroom, a public location that includes other students. Out-of-class interactions between teachers and students can occur in both public and private settings. Contact in the hallway or classroom before and after class, discussions at campus events, or chance meetings in informal locations on campus are less public than the classroom since others are not as likely to hear the student-teacher exchange but can readily observe it. In contrast, the office of the professor is a private extra-class setting where the comments and actions of the teacher are not easily viewed by others. Although the informality of extra-class communication may allow for more relaxed behavior, excessive immediacy in private settings is likely to be perceived as what Garlick (1994) called "an inappropriate assumption of familiarity and closeness in a relationship where such closeness does not exist" (p. 153). While excessive immediacy may be somewhat embarrassing to the student in the classroom, it is much more likely to be considered improper in the privacy

of the professor's office. Previous research indicated that when any touch occurs in office interactions, female students perceive it negatively, whereas male students perceive the touch as a violation only if it is invasive (Lannutti et al., 2001). However, that study examined only opposite-sex touching behavior. Since immediacy involves a cluster of several behaviors, the impact of excessive immediacy in the extra-class setting is likely to result in more intense reactions even in males. Therefore, it is likely that the isolation of the location will result in negative perceptions of excessive teacher immediacy by male students also. Therefore,

H5: Students will perceive the teacher's high immediacy messages as (a) more inappropriate in the office than in the informal campus setting, and (b) more inappropriate in the informal campus setting than in the classroom setting.

While this investigation argues that high immediacy behavior will be evaluated as inappropriate, it is more difficult to predict whether or not the student will identify it as a sexually harassing message. Some scholars describe sexual harassment as a continuum of behaviors, ranging from subtle hints to explicit actions (Garlick, 1994; Hagedorn, 1999). Others argue that sexual harassment is defined by the target based on the situation, their personal relationship with the other person, their prior knowledge of what constitutes sexual harassment, as well as other factors (Booth-Butterfield, 1989; Bursik, 1992). Ultimately, the victim of the conduct is the one who must determine if the unpleasant behavior constitutes sexual harassment. Subtle harassment behavior and high immediacy behaviors have similarities, and the ambiguity of these behaviors creates the opportunity for students to misinterpret the instructor's intentions. Privacy violations are considered

especially invasive when they come from a teacher (Burgoon et al., 1989). However, whether the student will actually label the behavior as sexual harassment is unclear. Garlick (1994) argued that perceptions of implicit sexual harassment are affective reactions rather than cognitive beliefs, and that feelings are the primary basis of one's interpretation. Students may believe that offensive behavior is inappropriate yet fail to label it as sexual harassment (Jaschik & Fretz, 1991). A target may feel uncomfortable or even threatened, yet not recognize the behavior as sexual harassment. Men, especially, may believe that sexual harassment only happens to females or may be embarrassed to admit that they are targets of harassing actions.

Generally, female students are more likely than males to interpret behaviors as sexual harassment (Booth-Butterfield, 1989; Mongeau & Blalock, 1994; Reilly et al., 1987). However, Bursik (1992) found considerable agreement between male and female students about what behavior they perceive as sexual harassment especially when it came from a more powerful source. Other researchers found that students evaluate immediacy descriptions as more appropriate than sexual harassment descriptions (Mongeau & Blalock, 1994). However, these researchers compared a list of statements of moderate immediacy in a class setting to another list of statements containing obvious sexual overtones in an unclear setting. Immediacy is a collection of behaviors that occur simultaneously, not as isolated nonverbal signals. Also, the study did not present the behaviors in clearly comparable situations.

The conflicting literature concerning what students perceive as sexual harassment, and whether male and female students agree, leaves the issue of their interpretation of excessive teacher immediacy unresolved. However, when presented with a forced choice,

students should be able to make a determination as to whether their interpretation of high immediacy includes labeling it as sexual harassment. Thus, the following hypotheses are presented regarding the interpretation of sexual harassment.

H6: Female students are more likely than male students to interpret a teacher's high immediacy behavior as sexual harassment.

H7: Students are more likely to interpret a teacher's high immediacy behavior as sexual harassment in a private office setting than in the more public classroom or student center setting.

This chapter provides the rationale and hypotheses for this study. The next chapter will discuss the methodology to be used to test these hypotheses.

CHAPTER 4

METHODS

Previous chapters reviewed the literature on immediacy in instructional settings, message interpretation, and sexual harassment and presented the rationale for seven hypotheses predicting the effect of sex of the student, sex of the teacher, and the setting in which the interaction occurred on students' interpretations of control, caring, appropriateness, and sexual harassment of a teacher's high immediacy message. The purpose of this chapter is to describe the methodology used to collect and analyze the data to test the hypotheses. The discussion will cover the participants, procedure, instrument, and statistical analyses employed in testing the hypotheses.

Participants

A GPower *a priori analysis* (Faul & Erdfelder, 1992) estimated that a sample size of at least 176 participants was needed for this study to obtain a medium effect size with an alpha of .05. A total of 381 students in lower-level communication studies classes at Louisiana State University completed the survey instrument. Two participants were eliminated from the study for failing to answer a majority of the questions. These deletions resulted in a sample size of 379 participants. Fifty-three percent ($n = 202$) of the subjects were female and 47% ($n = 177$) were male. The ethnic identification of the respondents was 83% European American, 11% African American, 2% Hispanic, 2% Asian American, and 2% reporting either Native American or other ethnic groups. One student failed to report his ethnic group.

The subjects ranged in age from 18 to 55, with a median age of 20 and a mean age of 20.32 ($SD = 2.82$). Students reported their university classification as 12.4% freshmen,

54% sophomores, 23% juniors, 11% seniors, and .3% other. The participants were overwhelmingly single (97%), with 1% married, .5% divorced, 1% other, and one student not reporting marital status.

Procedure

Instructors asked their students to fill out the questionnaire during class time, a task that took approximately fifteen minutes to complete. Participation in the study was voluntary and anonymous. Individual instructors determined whether or not they would give extra credit to their students for participating in the research project. The research purpose was unknown to the instructors administering the questionnaires and to the students completing them.

The questionnaire consisted of three sections, including questions seeking demographic information on the participants, their interpretations of a scenario describing a high immediacy interaction between the student and a professor, and information about their experiences with extra-class communication. Six versions of the survey were mixed and randomly distributed to the students by their instructors. The information was collected during the final two weeks of the spring semester, which allowed students ample opportunity to have experienced extra-class communication with their professors.

Instrument

The first section of the questionnaire asked for demographic information about the participants. This information included their sex, age, classification, ethnic group, and marital status.

In the second section students were asked to read a hypothetical scenario and imagine themselves as the recipient of a teacher's high immediacy message. I chose to

use scenarios in this research for two reasons. First, it is important for the subjects to view themselves as the target of the high immediacy message in order to assess their reaction to the behavior (Booth-Butterfield, 1989). The use of a videotaped interaction positions the student as an observer of an event happening to someone else, not as the target. Secondly, since the context puts the student in the potentially uncomfortable and offensive position of being sexually harassed by a more powerful other, sensitivity to the possibility of psychological harm to the subject suggested that a hypothetical scenario would be more prudent than subjecting them to a live encounter.

The three independent variables tested in the study were sex of the student, sex of the teacher, and the setting in which the high immediacy interaction between the teacher and student takes place. The setting had three levels: the classroom, the professor's office, and the student center (the Union) on campus. The first independent variable, sex of the student, was collected from the subject's response in the demographic section. Sex of the teacher and the setting of the interaction were manipulated in six versions of the scenario. Two of the scenarios involved either a male or female teacher using high immediacy behavior while leading a classroom discussion. The teacher's high immediacy behavior in this scenario was designed to be consistent with the description of the high immediacy conditions created in the Comstock et al. (1995) experiment. Similar to the Comstock study, a visiting professor was employed in the vignette to lessen the possibility of the students using their own instructor as a reference point and to encourage them to tap into their teacher and gender schemas when responding to the statements.

Scenario: A female (male) professor is teaching your class this week while your instructor is out of town. While leading the class discussion, she (he)

walks up and down the aisles, smiles, and makes extensive eye contact with you. As she (he) approaches you in the class, she (he) moves close to you, leans over your desk, and touches your arm. Looking directly at you and using an expressive voice, she (he) says, "What do you think about this topic?" How would you interpret this situation?

Two more scenarios involved either a male or female professor using the same high immediacy behaviors as in the previous scenarios while interacting with the student in his or her office. This scenario was also designed to utilize the high immediacy behaviors described in the Comstock et al. (1995) study and the moderate touch condition employed in a scenario in research by Lannutti et al. (2001) on the impact of touch during student-teacher office interactions.

Scenario: A female (male) professor is teaching your class this week while your instructor is out of town. She (He) has invited you to come to her (his) office to discuss a paper that you are writing. While going over the paper in her (his) office, she (he) walks around her (his) desk, smiles, and makes extensive eye contact with you. As she (he) approaches your chair, she moves close to you, leans toward you, and touches your arm. Looking directly at you and using an expressive voice, she (he) says, "What do you think about this topic?" How would you interpret this situation?

The final two scenarios involved a male or female professor using the same high immediacy behaviors while interacting with a student during a chance encounter in the

university student center (The Union). This informal campus situation was designed to be consistent with the previous two scenarios.

Scenario: As you walk through the Union, you see a female (male) professor who is teaching your class this week while your instructor is out of town. She (He) smiles, makes extensive eye contact with you, and asks you to join her (him) to talk about your paper. As you are talking, she (he) moves close to you, leans toward you, and touches your arm. Looking directly at you and using an expressive voice, she (he) says, “What do you think about this topic?” How would you interpret this situation?

In each of the three settings half of the questionnaires presented the professor as female and half presented the professor as male.

Each student received one of the six scenarios. After reading the scenario, the students were asked to respond to statements that assessed their interpretations of the high immediacy behavior. The dependent variables were the students’ interpretations of control, caring, appropriateness, and sexual harassment.

Statements measuring the relational variables of control and caring were adapted from Burgoon and Hale’s (1987) Relational Communication Survey and from Edwards (1998, 2000) research on interpreting relational messages. I reworded the statements to make them appropriate to the teacher-student relationship. Seven items on the instrument measured interpretations of control: “The teacher is trying to control me,” “The teacher is trying to intimidate me,” “The teacher is trying to dominate me,” “The teacher is trying to show superiority to me,” “The teacher is acting aggressively toward me,” “The teacher is trying to control the interaction,” and “The teacher is trying to manipulate me.”

Participants were asked to react to statements assessing their interpretations of control using a 5- point Likert scale. Responses ranged from 1 for strongly disagree to 5 for strongly agree. Scores were computed by averaging across the control items with higher values representing more of the variable ($M = 2.70$, $SD = .78$). Cronbach's alpha reliability for the seven items measuring control was estimated at .81 in the classroom scenario, .88 in the office scenario, and .87 in the student center scenario.

Caring interpretations were also measured by seven items: "The teacher cares about me," "The teacher wants to establish a good relationship with me," "The teacher is expressing concern for me," "The teacher is being friendly," and "The teacher is communicating warmth," "The teacher cares about my ideas," and "The teacher is being supportive." Participants responded to statements assessing their interpretations of caring using a 5- point Likert scale, ranging from 1 for strongly disagree to 5 for strongly agree. Scores for caring were computed by averaging across the seven items with higher values representing more of the variable ($M = 3.28$, $SD = .78$). The Cronbach's alpha reliability estimates for caring were .88 in the classroom scenario, .91 in the office scenario, and .92 in the union scenario.

Six items measured the student's perceptions of the appropriateness of the behavior. These statements were drawn from several studies examining immediacy and sexual harassment behavior (Garlick, 1994; Mongeau & Blalock, 1994; Lannutti et al. 2001), and were adapted for the specific scenarios in this study. Items included: "The teacher's behavior makes me feel uncomfortable," "The teacher is acting in an inappropriate manner," "The teacher's behavior is too intimate for the situation," "The teacher's behavior is too personal," "The teacher's behavior is improper," and "The

teacher's behavior is offensive." Participants responded to statements that measured their interpretation of the immediacy behavior as inappropriate using a 5- point Likert scale, ranging from 1 for strongly disagree to 5 for strongly agree. Since the items measuring appropriateness were worded negatively, higher numbers indicated that the behavior was perceived as inappropriate, which is consistent with the wording of the hypotheses. Scores were created by averaging across the six items. The mean for inappropriateness was 3.49 ($SD = 1.09$). The Cronbach's alpha reliability estimates for inappropriateness were .94 in the classroom scenario, .95 in the office scenario, and .94 in the union scenario.

The final five items in Section II concerned the students' interpretation of the high immediacy behavior as sexual harassment. Previous literature has shown that most students are uncertain about what sexual harassment involves, particularly if it is implicit in nature. Booth-Butterfield (1989) argued that one person may interpret cues differently from another, and thus, "one individual may see an action as sexually offensive or threatening while another does not" (p. 262). Thus, the students' perception of whether the high immediacy behavior was sexual harassment was measured with a 4 point Likert scale to which the respondents indicated 1 for strongly agree, 2 for agree, 3 for disagree, or 4 for strongly disagree. I eliminated the no opinion option in order to force the participants to make a decision as to whether or not to label the behavior as sexual harassment. These statements were designed to determine if the student cognitively identified the behavior as sexual harassment. The five items measuring interpretations of sexual harassment were "The teacher's behavior is sexually suggestive," "The teacher's behavior creates a hostile environment for me," "The teacher is sexually intimidating to

me,” “The teacher’s behavior is sexual harassment,” and “The teacher’s behavior involves unwanted sexual advances.” Scores were created by averaging across the five items. The mean for interpretations of sexual harassment was 2.41 ($SE = .80$) on the four point scale. Cronbach’s alpha reliability estimates for interpretations of sexual harassment were .91 in the classroom scenario, .93 in the office scenario, and .94 in the student center scenario.

A principal components factor analysis utilizing a varimax rotation was conducted on the data set to determine the underlying structure of the 25 items used to measure students’ interpretations of the high immediacy message. Initial analysis revealed three components with eigenvalues greater than 1.00. The varimax rotation indicated that all of the sexual harassment items loaded with the inappropriate items, which implies that both are interpretations of unacceptable behavior. The other items clustered as either caring or control. One item used to measure control, “The teacher is acting aggressively toward me,” loaded in the inappropriate factor.

The sexual harassment items were designed to determine if the student would cognitively label high immediacy behavior as sexual harassment. When they were removed, the factor analysis revealed that the remaining 20 items clustered into 3 factors. The six items used to measure interpretations of inappropriateness clustered together, with loadings of .68 to .86. Seven items used to measure caring loaded as a second factor with values of .67 to .80. Loadings for the seven items that measured control ranged from .51 to .77 and clustered together as the third factor.

In an effort to increase the knowledge on how students interact with their professors outside of the classroom, I added an additional section to the questionnaire to

collect data on students' use of various types of extra-class communication and how satisfied they were with the amount of ECC they had with their professors. Questions included: "How many times have you visited the professor in his or her office this semester?" "How many times have you contacted the professor by phone this semester?" "How many times have you contacted the professor by email this semester?" "How many times has the professor contacted you by email this semester?" "How often have you talked with the professor in informal settings on campus?" and "How satisfied are you with the level of contact you have with the professor?"

Answers to the frequency questions were measured by using six categories, including none, 1-2, 3-5, 6-8, 9-11, and over 12. In addition to determining the frequency of contact for each type of ECC, an overall ECC frequency score was calculated for each participant. Numbers from 1-6 were assigned to each of the six frequency categories, with higher numbers representing greater rate of contact. These numbers were then added across the five methods of contact to obtain a composite frequency score. Student satisfaction with the amount of contact was measured with a Likert scale ranging from 1-5, with one for not satisfied to five for very satisfied ($M = 3.54$, $SD = 1.05$).

Subjects were instructed to answer the questions concerning extra-class interactions by considering the amount of contact that they had this semester with the professor whose class they attended immediately before the one they were in while taking the survey. This method of accessing a broad sample of professors in a variety of disciplines was developed by Plax, Kearney, McCroskey, and Richmond (1986) and has been used extensively in instructional communication research. Appendix A shows an

example of the complete instrument as given to the subjects. Appendix B presents the six scenarios.

Statistical Analyses

This study examined the effects of sex of the source, sex of the recipient, and the educational setting on interpretations of caring and control of high immediacy messages. In addition, the students' perception of the appropriateness of the behavior and whether or not the behavior is perceived as sexual harassment was also assessed.

Although no predictions were made regarding relationship among the dependent variables, preliminary analysis using Pearson correlation tests revealed significant correlations between them. Interpretation of control was negatively associated with caring, $r(379) = -.56$, two-tailed $p < .001$, and positively correlated with perceptions of inappropriateness, $r(379) = .66$, two-tailed $p < .001$, and sexual harassment, $r(379) = .64$, two-tailed $p < .001$. Caring was not only inversely associated with control, it was also negatively related to inappropriateness, $r(379) = -.66$, two-tailed $p < .001$, and sexual harassment, $r(379) = -.61$, two-tailed $p < .001$. Interpretation of inappropriateness had a strong correlation with perception of sexual harassment, $r(379) = .83$, two-tailed $p < .001$.

A multivariate analysis of variance (MANOVA) was used to test the effect of the three predictor variables, sex of the teacher (two levels), the sex of the student (two levels) and the university setting (three levels) on the four dependent variables, students' interpretations of caring, control, inappropriateness, and sexual harassment (Hypotheses 1 - 7). Alpha was set for all analyses at .05.

The data collected on extra-class communication was explored in a number of ways. Frequencies and percentages were tabulated to determine the amount of ECC that students had with their professors using each of the 5 methods of contact. Frequencies and percentages were also tabulated on the level of satisfaction with the amount of ECC. Using Spearman's rho, I correlated the composite frequency of ECC with satisfaction to determine if there was a relationship between the two. Finally, the effect of student sex on overall frequency of ECC was tested using a Pearson Chi Square test, and the effect of student sex on satisfaction was tested with a one-way analysis of variance. The results of these analyses are described in the next chapter.

CHAPTER 5

RESULTS

The previous chapter described the methods and procedures used to collect and test the hypotheses and the ECC data. The purpose of this chapter is to present the results of the statistical analyses. The outcomes are reported in two sections. The first part describes the results of the statistical tests on the seven hypotheses. The second part presents summary descriptives and exploratory tests on the data collected about extra-class communication between students and their professors.

Hypotheses Testing

The hypotheses were tested using a multivariate analysis of variance (MANOVA) with four dependent variables, control, caring, inappropriateness, and sexual harassment. The independent variables were sex of the student (2 levels), sex of the teacher (2 levels), and the university setting in which the interaction took place (3 levels).

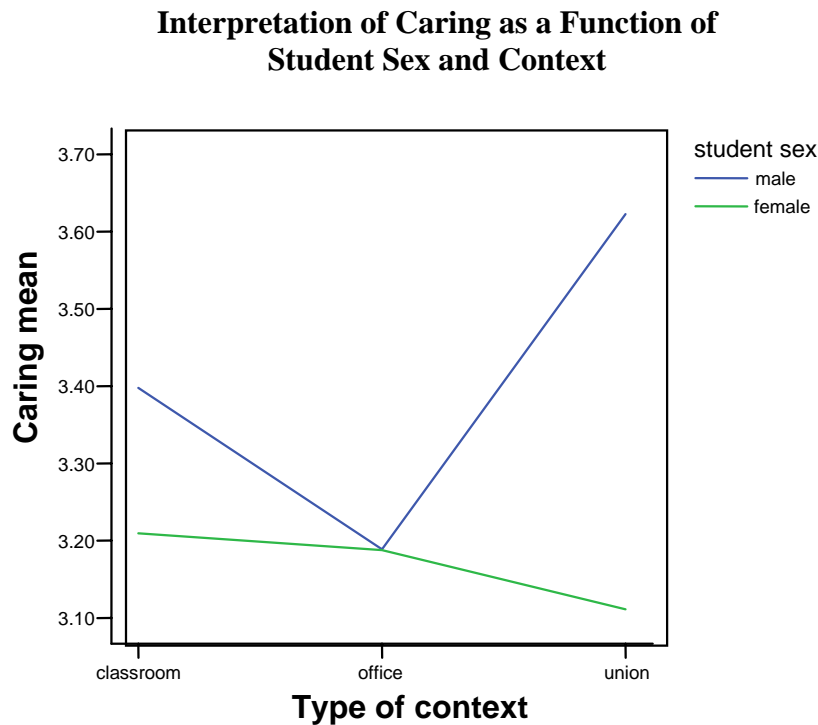
The MANOVA revealed significant multivariate effects for each of the three independent variables with no interaction effects. Multivariate tests indicated main effects for sex of the student, Wilks' $\Lambda = .90$, $F(4, 364) = 10.23$, $p < .001$, $\eta^2 = .10$, sex of the teacher, Wilks $\Lambda = .89$, $F(4, 364) = 11.01$, $p < .001$, $\eta^2 = .11$, and the setting, Wilks $\Lambda = .95$, $F(8, 728) = 2.55$, $p < .01$, $\eta^2 = .03$, on the combined dependent variables. A three-way analysis of variance was then examined to determine the effects of the predictor variables on each of the specific interpretations.

Control was the first interpretation considered. Hypothesis number one predicted that students interpret high immediacy messages from male teachers as more controlling than those from female teachers. This hypothesis was supported, $F(1, 367) = 9.914$, $p =$

.002, $\eta^2 = .03$. Inspection of means revealed that high immediacy messages from male teachers ($M = 2.82$, $SE = .056$) are more likely to be interpreted as controlling than the same messages from female teachers ($M = 2.57$, $SE = .056$). Furthermore, the analysis also revealed a weak, but significant effect for sex of the student on interpretation of control, $F(1, 367) = 4.125$, $p = .043$, $\eta^2 = .01$, with female students ($M = 2.79$, $SE = .054$) more likely than male students ($M = 2.62$, $SE = .058$) to interpret high immediacy as control. The analysis found no significant effect for context and no interaction effects on interpretations of control.

The ANOVA showed that sex of the teacher also had a significant effect on interpretations of caring, $F(1, 367) = 35.14$, $p < .001$, $\eta^2 = .09$. This result supported Hypothesis 2 which stated that students interpret high immediacy messages from female teachers ($M = 3.51$, $SE = .053$) as more caring than those from male teachers ($M = 3.06$, $SE = .054$). In addition, the analysis showed that male students were more likely than female students to interpret high immediacy messages as caring, $F(1, 367) = 7.33$, $p = .007$, $\eta^2 = .02$. However, this main effect was moderated by an interaction effect that revealed that the sex of the student interacted with the context in which the encounter occurred to predict interpretations of caring. Examination of the interaction effect, $F(2, 367) = 3.32$, $p = .037$, $\eta^2 = .02$, revealed that male students were more likely to perceive caring in high immediacy messages that occurred in the informal student center setting ($M = 3.60$, $SE = .098$) than the female students were ($M = 3.14$, $SE = .087$). Male and female students' interpretations of caring were almost identical in the office setting (M for male students = 3.18, $SE = .098$; M for female students = 3.19, $SE = .088$) and were

similar in the classroom context (M for male students = 3.39, $SE = .091$; M for female students = 3.23, $SE = .095$). The following profile plot illustrates this interaction.



Hypotheses number three, four, and five predicted students' interpretations of inappropriateness. The three-way ANOVA revealed significant main effects for sex of the teacher and sex of the student but no interaction effects. The third hypothesis stated that students interpreted the male teacher's high immediacy message as more inappropriate than the same message from the female professor supported. This hypothesis was supported, $F(1, 367) = 32.66, p < .001, \eta^2 = .08$. The mean for male professors was 3.77 ($SE = .07$) and the mean for female professors was 3.17 ($SE = .07$).

Hypothesis number four predicted that an interaction effect would be present in that male students would interpret high immediacy messages from male professors even more negatively than female students do. The data did not support this hypothesis. In fact, the means for female students' interpretations of the inappropriateness of male teachers' immediacy were higher than those from male students (M for female students = 4.03, $SE = .10$; M for male students = 3.51, $SE = .11$), although this difference was not statistically significant ($p = .42$). The main effect for sex of the student was significant, $F(1, 367) = 33.94, p < .001, \eta^2 = .09$. Female students ($M = 3.77, SE = .07$) interpret high immediacy from all teachers as more inappropriate than male students do ($M = 3.17, SE = .08$).

Hypothesis number five stated that students perceive teachers' high immediacy messages as (a) more inappropriate in the office than in the informal campus setting, and (b) more inappropriate in the informal campus setting than in the classroom setting. The test results were not significant, although the means were in the predicted direction (office $M = 3.57, SE = .09$; student center $M = 3.49, SE = .09$; classroom $M = 3.35, SE = .09$).

Hypotheses six and seven predicted students' perceptions of sexual harassment in teachers' high immediacy behavior. Hypothesis six stated that female students are more likely than male students to label a teacher's high immediacy behavior as sexual harassment. Test results supported this hypothesis. Participant sex significantly effected interpretations of high immediacy behavior as sexual harassment, $F(1,367) = 14.12, p < .001, \eta^2 = .04$. The mean for female students was 2.55 ($SE = .05$) on a four point scale, whereas the mean for male students was 2.25 ($SE = .06$). The analysis further revealed a

significant main effect for teacher sex, $F(1, 367) = 19.37, p < .001, \eta^2 = .05$. Students were more likely to label the male professors' high immediacy ($M = 2.57, SE = .06$) as sexual harassment than the female professor's behavior ($M = 2.23, SE = .06$).

Hypothesis seven predicted that students are more likely to interpret teacher immediacy as sexual harassment in a private faculty office than in the more public classroom or informal campus contexts. Results of the ANOVA showed that setting had a significant influence on students' interpretations of harassment, $F(1, 367) = 5.22, p = .006, \eta^2 = .03$. A Bonferroni post hoc test was conducted to determine exactly where the significant differences lie. The results revealed a significant difference ($p = .009$) existed between the effect of the office setting ($M = 2.51, SE = .07$) and the classroom ($M = 2.22, SE = .07$) but not between the office and the student center location ($M = 2.47, SE = .07$). Thus the seventh hypothesis can only be partially supported. The test also showed a significant difference ($p = .013$) between the student center setting and the classroom. Students are more likely to identify high immediacy behavior as sexual harassment in the office setting and in the informal union setting than in the public classroom.

Additional post hoc discriminant analyses were completed following the initial testing. The result of those analyses is reported in Appendix C.

The following is a summary of the hypotheses advanced by this study and the results:

H1: Students interpret high immediacy messages from male teachers as more controlling than those from female teachers. SUPPORTED

H2: Students interpret high immediacy messages from female teachers as more caring than those from male teachers. SUPPORTED

H3: Students interpret high immediacy messages from male teachers as more inappropriate than those from female teachers. SUPPORTED

H4: Male students interpret high immediacy messages from male teachers even more negatively than female students do. NOT SUPPORTED

H5: Students will perceive the teacher's high immediacy messages as (a) more inappropriate in the office than in the informal campus setting, and (b) more inappropriate in the informal campus setting than in the classroom setting. NOT SUPPORTED

H6: Female students are more likely than male students to interpret a teacher's high immediacy behavior as sexual harassment. SUPPORTED

H7: Students are more likely to interpret a teacher's high immediacy behavior as sexual harassment in a private office setting than in the more public classroom or informal campus settings. PARTIALLY SUPPORTED

Additional Findings on Extra-class Communication

In addition to testing the hypotheses advanced in this study, data was collected and tested to further inform the literature on how frequently students used each of the various methods of extra-class contact and how satisfied they were with that amount of interaction. Student responses gathered close to the end of the semester indicated that most students had not taken advantage of opportunities to interact with their professors outside the classroom. Fifty-three percent of students had not visited their professor's office at all during the semester, and 33% reported visiting only 1 or 2 times. Phone contact was even less frequent. Almost 90% of the respondents indicated that they had not contacted the professor by phone during the semester, and 8% reported only one or two phone calls. Over 76% of the students had never talked to the teacher in an informal setting on campus.

More students were taking advantage of email opportunities, with only 32% reporting that they had not contacted the professor by email during the semester. Nearly 34% of the students had contacted the teacher one or two times, 22% reported three to

five email contacts, and 12% indicated that they had emailed the teacher six or more times. Some of this contact may have been initiated by teachers contacting students by email. Eighty-three percent of the students indicated that their professor had emailed them one or more times this semester, with 34% reporting six or more emails. Only seventeen percent of the students reported that their professor has not emailed them at all during the semester.

While many students did not seek out extra-class communication with their professors, most of them were satisfied with the amount of their interaction. Sixty-one percent reported that they were satisfied or very satisfied with the level of contact they had with the professor. Only 19% said that they were not satisfied or only somewhat satisfied with the frequency of extra-class communication ($M = 3.54$, $SD = 1.05$).

Although no predictions were made regarding the relationship between satisfaction and total amount of ECC, it is reasonable to assume that more ECC contact would be positively associated with higher satisfaction. A Spearman correlation supported this assumption, $\rho(379) = .123$, one-tailed $p = .008$.

To further explore the relationship between the sex of the student and extra-class communication, I conducted two exploratory analyses. A Chi Square comparison revealed no significant difference between male and female students in the amount of ECC. However, a one-way analysis of variance used to test for the effects of sex of the student indicated that a significant difference exists between male and female students' level of satisfaction with the amount of their out-of-class contact with their professor, $F(1, 377) 6.75$, $p = .01$. Inspection of the means indicated that female students ($M = 3.67$,

$SD = 1.05$) were more satisfied with their frequency of out-of-class contact with their professors than male students ($M = 3.39$, $SD = 1.03$) were.

This chapter presented the results of hypotheses testing and summary information on the extra-class communication. The sixth and final chapter will discuss these findings and their implications. Chapter 6 will also address the limitations of the study and suggest directions for future research.

CHAPTER 6

DISCUSSION

Immediacy behavior usually invites others into relationships by conveying messages of inclusion and liking. Previous research found many positive academic outcomes that occur when teachers use immediacy in their interactions with students. However, several scholars discovered that negative results occur if immediacy becomes excessive. These researchers have only speculated as to why these problems arise. This study argues that as teacher immediacy increases to higher levels, students begin to get a different message from the behavior.

The primary purpose of this study was to examine the effects of sex and setting on students' interpretations of teachers' high immediacy messages. More specifically, this research looks at the influence of the sex of the receiver (the student), the sex of the sender (the teacher), and the university context in which the high immediacy exchange takes place (classroom, office, student center) on students' interpretations of control, caring, appropriateness, and sexual harassment. The purpose of this final chapter is to discuss the conclusions supported by the data and their implications for instructional communication. I will also identify the limitations of the study and propose directions for future research.

Interpretation of Hypotheses Testing

Seven hypotheses were tested in this dissertation, with five of them receiving support. This section will discuss these findings and advance possible reasons for the results.

Results of the data analyses suggest that sex of the teacher affects the relational meanings that students get from their high immediacy behavior. Students infer control messages from male professors and caring messages from female professors, as predicted by hypotheses one and two. These findings support the assumption that students tend to use gender stereotypes when interpreting instructors' relational intent. The academic roles of student and professor and the status differences inherent in those roles probably enhance this tendency in that they activate additional social schemas that impact the interpretation process. Students may be interpreting professors' relational intent based on expectations for teachers developed in early educational experiences. If this is the case, high teacher immediacy is likely to help perpetuate traditional sex stereotypes in university contexts.

Sex of the teacher also influences the inferences that students make related to the appropriateness of the high immediacy behavior. Hypothesis three was supported in predicting that students interpret high immediacy from male teachers as more inappropriate than the same message from female teachers. This result provides additional support for Garlick's (1994) assertion that female students perceive ambiguous immediacy messages from male teachers as inappropriate and uncomfortable. My investigation, however, suggests that both male and female students will interpret excessive immediacy from male teachers as more inappropriate than when it comes from female professors. The results of this study are consistent with the Discrepancy-Arousal Theory (DAT) which posits that discrepancy between a person's expectations and the other's behavior heightens arousal (Cappella & Green, 1982). DAT predicts that at moderate levels, immediacy will be perceived as pleasant and will increase affect for the

source. This consequence is supported by previous literature that shows moderate immediacy increases affect for the course and the teacher (Comstock et al., 1994). However, DAT also predicts that as immediacy continues to increase, excessive arousal will create an unpleasant reaction. Since immediacy involves multiple nonverbal cues, students may be reacting to the excess of closeness, particularly the touching and proximity behaviors. Thus, the high immediacy behavior conflicts with students' expectations of appropriate teacher behavior. Actions of instructors that interfere with instruction and learning are identified as teacher misbehaviors, and include indolent, inconsiderate, and offensive conduct (Kearney, Plax, Hays, & Ivey, 1991). Both immediacy (Thweatt & McCroskey, 1998) and nonimmediacy (Thweatt & McCroskey, 1996) have been investigated as variables that impact students' perceptions of teacher misbehavior, with immediacy having an offsetting positive effect on perceptions of misbehavior and nonimmediacy producing a negative effect. My study suggests that excessive immediacy should be regarded as a form of offensive teacher misbehavior, at least when performed by male instructors.

Although the results of the study supported hypothesis three that students are more likely to interpret high immediacy from male teachers as more inappropriate than the same behavior from female teachers, the fourth hypothesis, which predicted an interaction effect in which male students interpret high immediacy from male teachers even more negatively than female students do, was not supported. This result is surprising given the research that found that males tend to perceive touching behaviors from other males negatively and as indicators of sexual involvement (Derlega et al., 1989; Floyd & Morman, 2000). Perhaps women feel more strongly about excessive

immediacy from an opposite-sex professor than men do when interacting with a same-sex professor. Or perhaps female students infer inappropriate intimacy from the behavior, whereas male students perceive inappropriate use of power, not intimacy. Previous literature asserts that excessive immediacy may be interpreted as dominance (Burgoon & LePoire, 1999). Messages related to control and power are commonly associated with male-male relationships in our society (Wood, 2005) and might mitigate the male students' interpretation of inappropriateness in same-sex interactions.

Sex of the teacher, sex of the student, and the university setting influence students' interpretations of sexual harassment. As hypothesized, female students are more likely than male students to perceive high immediacy as sexual harassment. This result is consistent with previous studies that reported female students are more likely than male students to recognize potentially harassing behaviors (see Booth-Butterfield, 1989; Reilly et al., 1987; Runtz & O'Donnell, 2003). Garlick (1994) assumed that female students who perceive immediacy as uncomfortable and inappropriate will also interpret it as sexual harassment. In contrast, other researchers argued that students recognize the difference between immediacy and sexual harassment (Mongeau & Blalock, 1994). My research indicates that female students are more likely than males to identify high immediacy behavior as sexual harassment. However, the mean for female students (2.55 on a 4 point scale) suggests that some uncertainty still exists about how this behavior should be labeled. Female students may be more conscious of behaviors that are offensive or objectionable, yet still hesitate to clearly label them as sexual harassment (Bursik, 1992; Jaschik & Fretz, 1991). Cognitive recognition that the behavior of a more powerful other is sexual harassment implies that the victim should report it. Hagedorn

(1999) pointed out that women often fear the consequences of reporting harassment, knowing that they will bear the burden of proof and that their academic career may be impacted. They may also fear intimidation, retaliation, or repercussions from the professor or university (Hagedorn, 1999). These consequences may be even more worrisome if the harassment is implicit rather than explicit.

The results also revealed that students are more likely to identify high immediacy as sexual harassment when it is enacted by a male professor. These findings are consistent with their interpretations of inappropriateness. It seems logical to conclude that if students view the male professor's behavior as inappropriate, they are obviously more likely to label it as sexual harassment. The high correlation between inappropriateness and sexual harassment reinforces this conclusion ($r = .83$).

In contrast, students may not recognize that harassment can be committed by women, as well as men, and that it can include same-sex as well as opposite sex victimization. This lack of knowledge may explain why students more readily identify the male professor's immediacy behavior as sexual harassment, but not the female professor's behavior. Or perhaps neither male nor female students perceive the female teacher's high immediacy behavior as inappropriate or offensive. Touching, close proximity, and other high immediacy behaviors exhibited by female professors seem to be related to interpretations of caring and nurturing, not sexual interest.

The context in which the high immediacy behavior occurs also influences interpretations related to sexual harassment. The seventh hypothesis predicted that students are more likely to perceive a teacher's high immediacy behavior as sexual harassment in the private office setting than in the more public classroom or informal

campus settings. This hypothesis was partially supported. Students are more likely to perceive high immediacy as sexual harassment when it occurs in the two extra-class settings than in the classroom. Previous research has not tested the relationship between various settings and teacher immediacy. Fusani (1994) reasoned that extra-class interactions could be more immediate than the classroom because norms and power dynamics were less strict, although he did not test this hypothesis. My research suggests that the opposite assumption is more likely to be the case. There was no significant difference in interpretations of inappropriateness in the three settings (hypothesis five) since the means were high for all of the locations. These data suggest that students tend to view the high immediacy message (even with a moderate level of touch) as inappropriate regardless of the setting. However, when excessive immediacy occurs in a professor's office, it is more likely to be identified as sexual harassment than in the classroom. Although the office may seem more casual to the professor, it may not feel that way to the student. The private nature of the professor's office appears to make students uncomfortable enough to label excessive immediacy as sexual harassment.

High immediacy in other extra-class settings, such as the university student center, is also more likely to be interpreted as sexual harassment than it is in the classroom. Interactions between professors and students at informal campus locations are both public and private. Other people are in the area, but may not notice the encounter. If others do notice the interaction, they may not be in a position to hear the conversation. Also, the role relationship between the two interactants may not be obvious to casual observers. The expectation of privacy does not exist as it does in the office, but the encounter is not completely public in that others are not as directly involved as they are in

a classroom discussion. The student may believe that the high immediacy message, with its increased eye contact, close proximity, and touching, is too intimate or sexually suggestive for this location, and thus, improper in the student-teacher relationship.

Previous research on the frequency of extra-class communication is incomplete because of inconsistent definitions of the phenomenon and the timing of data collections. Responses gathered in this research provide a more detailed picture of how often students use each of the various methods of contacting their professors outside the classroom by collecting the data at the end of the semester and asking about a broader range of channels (consistent with the definition offered by Bippus et al., 2003). Over 50% of the students reported that they made two or fewer contacts with their teachers either by phone, informal contact on campus, or office visits. These results are similar to previous studies which report that between 23% (Fusani, 1994) and 40% (Nadler & Nadler, 2000) never interact with their professors, and 50% only interact one or two times (Fusani, 1994). My study points to the same conclusion found in past studies that the vast majority of students are not taking advantage of opportunities to interact with their professors outside the classroom regardless of the numerous methods of doing so (see Bippus et al., 2003; Fusani, 1994; Jaasma & Koper, 1999; Nadler & Nadler, 1995). Also, the sex of the student does not seem to impact the amount of contact, although it does influence satisfaction, with women being more satisfied with their frequency of contact than men are.

The results of this study showed that 83% of the students had received emails from their teachers. This amount of teacher-initiated contact may suggest that teachers want more connection with students and are trying to stimulate it through email. In

contrast, the frequency could simply reflect the ease of using email to share information with students and not be indicative a relationship-building interaction. Previous research on ECC suggests that students interact more frequently with immediate teachers (Fusani, 1994; Jaasma & Koper, 1999). If teachers are tempted to increase their immediacy behavior to much higher levels to encourage more students to seek extra-class interaction, they may find their efforts are counterproductive because they are misinterpreted by the students.

Implications of the Study

The results of this dissertation have several implications for our understanding of immediacy in instructional communication. First, this research offers an explanation for the inverse curvilinear effect of low, moderate, and high teacher immediacy on learning outcomes found by Comstock and her colleagues (1995). The students in the high immediacy condition in their study probably interpreted the message differently from the students in the moderate level condition. This change in the meaning of the immediacy message is especially likely since the researchers used a male instructor in their experiment. Interpretations of control, inappropriateness, and sexual harassment are quite likely to have a detrimental effect on learning.

Another implication of this study relates to the research on the immediacy construct. As a result of instructional communication research revealing the beneficial outcomes of teacher immediacy, many scholars have encouraged instructors to increase their level of immediacy when communicating with students both in and outside the classroom. However, much of this research makes no distinction between moderate and high levels of immediacy, and only a few studies have examined the impact of the higher

levels of immediacy on students. The findings of my investigation suggest that the use of too much immediacy can change the message in ways that may negate its positive benefits. Instructional communication scholars should modify their references to high immediacy to clearly specify the difference between moderate and excessive levels of immediacy behavior.

The findings in this investigation also have several applications for university instructors. Teachers must recognize that there are appropriate and inappropriate levels of immediacy. At some point increasing amounts of teacher immediacy become problematic for the student, especially from their male instructors. Men who work and teach in academic settings need to be cognizant of gender biases that students have regarding their behavior. Although their motives for using high immediacy may be to increase student engagement and learning, the students' interpretation of the message may be too negative to result in such benefits. The conclusions of my research suggest that teachers, especially men, should adapt their immediacy behaviors to intermediate levels for more positive interpretations.

Teachers may also increase their immediacy in an effort to impress upon their students that they are receptive to extra-class interactions. While it is important for faculty to be both physically and psychologically accessible to students (Bippus et al., 2003; Wilson et al., 1974), they should be careful not to counteract their accessibility by using excessive immediacy. Professors who like to get together with students in informal settings on campus may find it more prudent to issue blanket invitations to all students to meet at a selected place on campus, and then allow the students to voluntarily respond to such interactions.

Finally, previous message interpretation research has examined ambiguous and equivocal messages and various characteristics and personality traits of the sender and receiver that influence interpretation. This study extends that research to immediacy messages. The results have been valuable in giving us a greater insight into the immediacy construct, particularly as the behavior is applied in instructional communication. This investigation is also the first study to apply the message interpretation theories developed by Edwards to messages that are primarily nonverbal in nature.

Limitations

Scenario research poses certain limitations. Actual high immediacy encounters between the participant and a professor using high immediacy would be more realistic for the subjects and might result in more accurate reporting of meanings. However, only a limited number of students would be able to have this experience. In the classroom setting other students would be influenced by their observations of the reaction of the student who was the actual target of the excessive immediacy. Actual student-teacher encounters in a faculty office or the student center would severely limit the number of participants in the study, but might provide more accurate data on interpretation. Perhaps a follow-up qualitative study using open-ended questions in interviews with students who have experienced high teacher immediacy would give us a more in-depth understanding of student interpretations and the reasoning related to those perceptions.

Another limiting factor in this study is that all of the data were collected at a large research university. Important differences may exist in students and teachers at other types of educational institutions that would limit the generalization of the findings. For

example, many students at community colleges are older and have more work experience. Booth-Butterfield (1989) found that adults who have full-time work experience, particularly men, are more aware of sexually harassing behaviors and consider these behaviors more serious than college students with limited work experience. Nontraditional students may be more cognizant of inappropriate behavior in professional relationships, which might influence their interpretations of excessive teacher immediacy. Students and teachers at private religious universities may also have different viewpoints on the teacher-student relationship that could influence their interpretation of high immediacy. While the results may predict student interpretations of high immediacy messages in higher education settings, we should be careful about generalizing the conclusions to high school or elementary student-teacher relationships.

Directions for Future Research

Message interpretation is a complex phenomenon. Many factors, other than sex of the participants and the setting, enter into the meaning that a given student receives from the cluster of immediacy behavior. Effect sizes in this study indicate that sex of the receiver or sender account for approximately ten percent of the variance in interpretation. Context accounts for even less. These effect sizes are consistent with results found in other studies on the impact of biological sex on message interpretation (see Edwards, 1999, 2000). Future research should examine other characteristics of the student and teacher to determine what effect they might have on interpretations of high immediacy.

Hummert's (1994, 1998, 1999) studies on the effect of age on stereotyping of older adults may be useful in examining how the age of the professor and the age of the student effect message interpretation. High immediacy messages from a young professor

might be more acceptable to university students in their twenties, whereas those from a much older professor might be viewed as inappropriate.

Previous research has suggested that gender role (Edwards, 1998, 2000; Edwards & Hamilton, 2004) and personality traits (Edwards et al., 2001) influence message interpretation. These factors are also likely to impact interpretations of high immediacy messages. Edwards (2000) argued that sex of the participants often interacts with their gender role to influence the received meaning. Future studies should investigate the influence of these characteristics in immediacy interpretations.

How well the student knows the teacher may also influence their interpretation of high immediacy behavior. If the student has had several courses from an instructor or has worked with him or her individually on research projects, familiarity and experiences in previous interactions are likely to impact the student's interpretation of the high immediacy behavior. Race or cultural background may also impact interpretation. In some cultures, even moderate teacher immediacy may be viewed as inappropriate. The role of immediacy and how it is interpreted by students in on-line interactions with teachers and in distance learning classes should be investigated.

Researchers may want to extend this investigation to other relationships and contexts. High immediacy in romantic relationships, family interactions, or friendships may be perceived as appropriate or even highly desirable under certain circumstances. However, excessive immediacy in business and professional relationships may be even more likely to be labeled as sexual harassment than it is in the instructional context. Future studies could also explore the specific meanings that high immediacy has in health, organizational, or religious contexts.

Conclusion

This dissertation extends the research on immediacy in instructional communication by clarifying how meanings change when teacher immediacy behavior becomes excessive. In summary, the results reveal that students interpret high immediacy along stereotypical lines with male teachers communicating control and female teachers expressing caring. They are more likely to perceive this behavior as inappropriate when it is enacted by a male teacher, and female students are more likely than male students to label it as sexual harassment. Interpretations of sexual harassment are more probable when excessive immediacy occurs in the professor's office and other informal campus settings than in the classroom.

Understanding student interpretations helps explain the results of the experiment conducted by Comstock et al. (1995) which indicated that a high level of teacher immediacy has a negative effect on learning. Given the findings, university instructors, especially males, should moderate their immediacy in interactions with students. Communication scholars must be more specific in describing the level of immediacy that they use in their research so that moderate levels will not be confused with more extreme levels.

This study has applied message interpretation theory to messages that are primarily nonverbal in nature. Future research should focus on other characteristics or traits that may influence the meaning that students receive from immediacy messages, such as age, gender role, personality, or past experiences with the instructor. Studies may also extend the results to other contexts and relationships.

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APPENDIX A

SURVEY INSTRUMENT

Instructional Communication Survey

Section I: Demographic Information. Please indicate the appropriate answer to describe yourself.

1. Sex: Male Female
2. Age: _____
3. Classification: Freshman Sophomore Junior Senior
Other _____
4. Race/Ethnic Group: African-American Asian-American Caucasian
Hispanic Native American Other _____
5. Marital Status: Single Married Divorced Other _____

Section II: Please read the following scenario and try to imagine yourself in the situation. Then indicate the extent to which each of the following statements describes your reactions. Use the following scale for your responses.

SA = strongly agree A = agree N = no opinion D = disagree SD = strongly disagree

Scenario: A female professor is teaching your class this week while your instructor is out of town. While leading the class discussion, she walks up and down the aisles, smiles, and makes extensive eye contact with you. As she approaches you in the class, she moves close to you, leans over your desk, and touches your arm. Looking directly at you and using an expressive voice, she says, "What do you think about this topic?" How would you interpret this situation?

- | | | | | | |
|---|----|---|---|---|----|
| 6. The teacher is trying to control me. | SA | A | N | D | SD |
| 7. The teacher cares about me. | SA | A | N | D | SD |
| 8. The teacher's behavior makes me feel uncomfortable. | SA | A | N | D | SD |
| 9. The teacher is trying to intimidate me. | SA | A | N | D | SD |
| 10. The teacher wants to establish a good relationship with me. | SA | A | N | D | SD |
| 11. The teacher is acting in an inappropriate manner. | SA | A | N | D | SD |

- | | | | | | |
|--|----|---|---|----|----|
| 12. The teacher is trying to dominate me. | SA | A | N | D | SD |
| 13. The teacher is expressing concern for me. | SA | A | N | D | SD |
| 14. The teacher's behavior is too intimate for the situation. | SA | A | N | D | SD |
| 15. The teacher is trying to show superiority to me. | SA | A | N | D | SD |
| 16. The teacher is being friendly. | SA | A | N | D | SD |
| 17. The teacher's behavior is too personal. | SA | A | N | D | SD |
| 18. The teacher is acting aggressively toward me. | SA | A | N | D | SD |
| 19. The teacher is communicating warmth. | SA | A | N | D | SD |
| 20. The teacher's behavior is improper. | SA | A | N | D | SD |
| 21. The teacher is trying to control the interaction. | SA | A | N | D | SD |
| 22. The teacher cares about my ideas. | SA | A | N | D | SD |
| 23. The teacher's behavior is offensive. | SA | A | N | D | SD |
| 24. The teacher is trying to manipulate me. | SA | A | N | D | SD |
| 25. The teacher is being supportive. | SA | A | N | D | SD |
| 26. The teacher's behavior is sexually suggestive. | SA | A | D | SD | |
| 27. The teacher's behavior creates a hostile environment for me. | SA | A | D | SD | |
| 28. The teacher is sexually intimidating to me. | SA | A | D | SD | |
| 29. The teacher's behavior is sexual harassment. | SA | A | D | SD | |
| 30. The teacher's behavior involves unwanted sexual advances. | SA | A | D | SD | |

Section III: Please answer the following questions **concerning your out-of-class interactions with the professor whose class you had just before the one you are in now**. If this is your first class of the day, think of the professor you had in your last class yesterday. Circle the answer that best represents your response.

31. How many times have you visited the professor in his or her office this semester?
- | | | | | | |
|------|-------|-------|-------|--------|---------|
| None | 1 – 2 | 3 – 5 | 6 – 8 | 9 - 11 | Over 12 |
|------|-------|-------|-------|--------|---------|

32. How many times have you contacted the professor by phone this semester?
 None 1 – 2 3 – 5 6 – 8 9 - 11 Over 12
33. How many times have you contacted the professor by email this semester?
 None 1 – 2 3 – 5 6 – 8 9 - 11 Over 12
34. How many times has the professor contacted you by email this semester?
 None 1 – 2 3 – 5 6 – 8 9 - 11 Over 12
35. How often have you talked with the professor in informal settings on campus (in the Union, Quad, etc.)?
 None 1 – 2 3 – 5 6 – 8 9 - 11 Over 12
36. How satisfied are you with the level of contact you have with the professor?
 Not satisfied Somewhat satisfied Usually satisfied Satisfied Very satisfied

APPENDIX B

HIGH IMMEDIACY SCENARIOS

Female Professor Classroom Scenario: A female professor is teaching your class this week while your instructor is out of town. While leading the class discussion, she walks up and down the aisles, smiles, and makes extensive eye contact with you. As she approaches you in the class, she moves close to you, leans over your desk, and touches your arm. Looking directly at you and using an expressive voice, she says, "What do you think about this topic?" How would you interpret this situation?

Male Professor Classroom Scenario: A male professor is teaching your class this week while your instructor is out of town. While leading the class discussion, he walks up and down the aisles, smiles, and makes extensive eye contact with you. As he approaches you in the class, he moves close to you, leans over your desk, and touches your arm. Looking directly at you and using an expressive voice, he says, "What do you think about this topic?" How would you interpret this situation?

Female Professor Office Scenario: A female professor is teaching your class this week while your instructor is out of town. She has invited you to come to her office to discuss a paper that you are writing. While going over the paper in her office, she walks around her desk, smiles, and makes extensive eye contact with you. As she approaches your chair, she moves close to you, leans toward you, and touches your arm. Looking directly at you and using an expressive voice, she says, "What do you think about this topic?" How would you interpret this situation?

Male Professor Office Scenario: A male professor is teaching your class this week while your instructor is out of town. He has invited you to come to his office to

discuss a paper that you are writing. While going over the paper in his office, he walks around his desk, smiles, and makes extensive eye contact with you. As he approaches your chair, she moves close to you, leans toward you, and touches your arm. Looking directly at you and using an expressive voice, he says, “What do you think about this topic?” How would you interpret this situation?

Female Professor Student Center Scenario: As you walk through the Union, you see a female professor who is teaching your class this week while your instructor is out of town. She smiles, makes extensive eye contact with you, and asks you to join her to talk about your paper. As you are talking, she moves close to you, leans toward you, and touches your arm. Looking directly at you and using an expressive voice, she says, “What do you think about this topic?” How would you interpret this situation?

Male Professor Student Center Scenario: As you walk through the Union, you see a male professor who is teaching your class this week while your instructor is out of town. He smiles, makes extensive eye contact with you, and asks you to join him to talk about your paper. As you are talking, he moves close to you, leans toward you, and touches your arm. Looking directly at you and using an expressive voice, he says, “What do you think about this topic?” How would you interpret this situation?

APPENDIX C

DISCRIMINANT ANALYSES RESULTS

At the request of a committee member, a series of post hoc stepwise discriminant analyses were conducted as a follow-up to the MANOVA due to the high correlations between the dependent variables (Pedhazur, 1982). The purpose of these analyses was to determine which linear combination of interpretations (control, caring, inappropriateness, sexual harassment) best distinguished the categorical groups. The results are reported in this appendix to the study.

The first analysis examined which interpretations of high immediacy behavior differentiated between male and female students. A significant function was generated, $A = .899$, $\chi^2(2, N = 379) = 39.84$, $p < .001$, indicating that the function predictors significantly differentiated between male and female students. Standardized function coefficients (see Table 1) revealed that the interpretations of inappropriateness and control were most associated with the function. Classification results revealed that 54% of the male students and 75% of the female students were accurately classified, with an overall classification accuracy of 65%. The canonical correlation is .32. The means of the discriminant function are consistent with these results. Male students had a function mean of -.36 and female students had a mean of .32. These results suggest that female students are more likely to interpret high immediacy as inappropriate and male students are more likely to interpret it as control. Table 1 presents the standardized discriminant function loadings of immediacy interpretations in terms of sex of the student.

TABLE 1

Stepwise Discriminant Analysis of Student Sex on Interpretations of Teachers' High Immediacy Behavior

Message Interpretation	Standardized Function Coefficient
Control	-.47
Inappropriate	1.25
Student sex function: $\chi^2(2) = 39.84, p < .001$, canonical $r = .32$	
Group centroids: Male = -.36, Female = .312	
Percentage of cases correctly classified = 64.9%	

A stepwise discriminant analysis was performed to determine which interpretations best discriminated male and female teachers. The analysis generated one significant function, $F = .90, \chi^2(2, N = 379) = 40.49, p < .001$. Two interpretations were entered into the function: caring and inappropriate. Table 2 presents the standardized function coefficients. Classification results revealed that 63% of the male teachers and 66% of the female teachers were correctly classified, with an overall classification accuracy of 64.4%. The canonical correlation is .32. Group means for the function were .34 for female teachers and -.34 for male teachers, indicating that high immediacy behaviors of female teachers were interpreted as caring and the same behaviors of male teachers were interpreted as inappropriate.

TABLE 2

Stepwise Discriminant Analysis of Teacher Sex on Interpretations of High Immediacy Behavior

Message Interpretation	Standardized Function Coefficient
Caring	.62
Inappropriate	-.49
Teacher sex function: $\chi^2(2) = 40.49, p < .001$, canonical $r = .32$	
Group centroids: Male = -.34, Female = .34	
Percentage of cases correctly classified = 64.4%	

A stepwise discriminant analysis was also done to find out which linear combinations of the message interpretation variables best predicted the academic context of the interaction. One function was generated and it was significant, $F = .97, \chi^2 (2, N = 379) = 10.28, p = .006$. Sexual harassment was the only interpretation entered into the function. Means for the contexts were classroom, $-.24$, office, $.13$, and student center, $.11$. Classification results revealed that 60% of the classroom contexts, 25% of the office contexts, and 31% of the student union contexts were correctly classified, with an overall classification accuracy of 38.3%. The canonical correlation is $.164$. This result suggests only a weak association between interpretations of sexual harassment and context. This association is most likely to occur when the teacher's high immediacy behavior occurs in the office and student center than when it occurs in the classroom. Table 3 presents the results of the analysis.

TABLE 3
Discriminant Analysis of Context on
Interpretations of High Immediacy Behavior

<u>Message Interpretation</u>	<u>Standardized Function Coefficient</u>
Sexual Harassment	1.00
Context function: $\chi^2 (2) = 10.28, p = .006, \text{canonical } r = .16$	
Group centroids: Classroom = $-.24$, Office = $.13$, Student Center = $.11$	
Percentage of cases correctly classified = 38.3%	

The results of the three discriminant analyses essentially support the MANOVA and univariate analyses previously reported.

VITA

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