HOW STUDENTS' GENDER AND SEX AFFECTS COMFORT WITH INSTRUCTOR IMMEDIACY BEHAVIORS

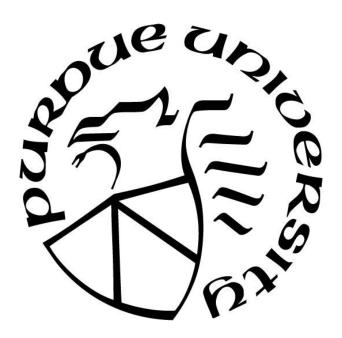by

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TABLE OF CONTENTS

LIST OF FIGURES

ABSTRACT

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Title: How Students' Gender and Sex Affects Comfort with Instructor Immediacy Behaviors
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This is a two-part study that investigated university students' comfort with instructors' nonverbal immediacy behaviors in a college classroom. A sample of 289 participants was drawn from a regional university in the Midwest. The participants were asked to respond to an instrument designed to measure the students' comfort with an instructors' nonverbal immediacy behaviors. In the first study, the results do not support the hypothesis that males are significantly more comfortable with immediacy behaviors than female students. The results also do not support the hypotheses that students of both sexes will be more comfortable with immediacy behaviors from female instructors than male instructors, or that of the four possible combinations, female students with male instructors will be the least comfortable with immediacy behaviors. In the second study, the results suggest that student gender does not have a significant effect on students' comfort with instructor immediacy behaviors. Finally, limitations, implications, and suggestions for future research are addressed.

CHAPTER 1. INTRODUCTION

Over the past several decades, there has been a trend within higher education to make classrooms more student-oriented (Kougl, 1997; Rester & Edwards, 2007). Educators have adapted such classroom techniques as active learning (Millis, 2012), classroom discussion (Cashin, 2011; Lyman, 1981), classroom assessment techniques (Enerson, Plank & Johnson, 1994) and immediacy behaviors (Frymier, 1993, 1994, 2012; Frymier & Houser, 2000; Frymier & Thompson, 1995). More than the other techniques, the success of immediacy behaviors in the classroom is heavily dependent on the students' perceptions and interpretations. The same immediacy behaviors can lead to different interpretations by different students (Edwards, 2000). Biological sex is tied to a set of cultural expectations. These expectations follow into the university classroom. Similar to sex, an individual's gender also comes with expectations that affect that way that individuals' actions and intentions are perceived. This two-part study investigates whether students' biological sex and gender affects their comfort with male and female professors' nonverbal immediacy behaviors.

The dynamic classroom relationship between an instructor and students has been well researched and documented over the past several decades. The interpersonal variable of immediacy behaviors has become a popular concept within the field of classroom communication (Frymier, 1993, 1994, 2012; Frymier & Houser, 2000; Frymier & Thompson, 1995; Houser, 2012; Mazer & Stowe, 2015; McCroskey, Richmond & Stewart, 1986; Miller, Katt, Brown, & Sivo, 2014; Neuliep, 1995; Zhang, Oetzel, Gao, Wilcox, & Takai, 2007). Immediacy, which was first introduced by psychologist Albert Mehrabian (1971) refers to the perceived physical or psychological closeness between people in a relationship (Mehrabian, 1971). It has been primarily used to understand the instructor-student relationship in the classroom (Frymier & Houser, 2000).

Immediacy is a perception that an individual has of another person (Frymier, 2012). It is understood to include actions which are primarily nonverbal in nature. Nonverbal immediacy includes behaviors such as eye contact, smiling, direct body orientation, standing near the students during conversations (Christophel, 1990, Frymier, 1994; Houser, 2012; Mazer & Stowe, 2015; Miller, Katt, Brown, & Sivo, 2014; Özmen, 2011). These behaviors give students an impression of the instructor being invested in their conversation and are both supporting and respecting the students (Filene, 2005). Similarly, using gestures, vocal inflections, facial expressions, using frequent head nods project further involvement in the conversation with the students (Christophel, 1990, Frymier, 1994; Houser, 2012; Mazer & Stowe, 2015; Miller, Katt, Brown, & Sivo, 2014; Özmen, 2011). This, in turn, is likely to build a stronger sense of immediacy between the student and instructor.

Additional immediacy behaviors include a more relaxed posture, and sitting on desk or chair while teaching (Christophel, 1990, Frymier, 1994; Houser, 2012; Mazer & Stowe, 2015). When these behaviors are used, "perceptions of liking and approachability are communicated to students who, in turn, respond positively" (Frymier, 2012, p. 2). Collectively, nonverbal immediacy behaviors give the impression to students that the instructor is caring, engaged, and supportive.

To a lesser extent, immediacy behaviors may also include verbal communication (Frymier, 2013). Verbal immediacy behaviors include using students' names and referring to class as "our" class or what "we" are doing rather than "my" class and what "I" am doing (Gorham, 1988). These behaviors present the students the idea that everyone, including the instructor and all students are a collective group and there is less hierarchy in the classroom. Engaging in informal conversations with students before and after class and using humor

(Gorham, 1988) also serves as an immediacy behavior while accomplishing the same results as using more immediate language listed above.

Previous research suggests that using immediacy behaviors results in many communicative benefits within the classroom (Christophel, 1990; Houser, 2012; Mazer & Stowe, 2015; Neuliep, 1995; Plax, Kearney, McCroskey & Richmond, 1986; Witt & Kerssen-Griep, 2011). Successful execution of immediacy behaviors has been linked to improved affective and cognitive student learning (Christophel, 1990; Houser, 2012; Mazer & Stowe, 2015; Neuliep, 1995; Plax, Kearney, McCroskey & Richmond, 1986), an increased perception of teacher credibility (Mazer & Stowe, 2015; Witt & Kerssen-Griep, 2011) and improved student cooperation (Neuliep, 1995; Plax, Kearney, McCroskey & Richmond, 1986).

The past literature outlines the the value of immediacy behaviors in the classroom. The purpose of this study is to expand on that research by examine how student characteristics may affect the interpretation and comfort of instructor immediacy behaviors. Past research found that biological sex plays a role in message interpretation (Edwards, 2000). Additionally, gender has been found to carry roles that may affect the way individuals perceive behaviors. For these reasons, this study looks to uncover how students' biological sex and gender may influence their comfort with immediacy behaviors.

The literature demonstrates that the use of immediacy behaviors can greatly affect the classroom. Therefore, it is important to understand the implications of these effects in the areas of student learning, instructor credibility and student behavior. The following is an explanation of these three areas.

Student Learning

The primary focus in American education is student learning (McCroskey & Richmond, 1992). In a traditional classroom, learning is an interactional process (Richmond, Gorham & McCroskey, 1987). Similarly, classroom immediacy is developed through interaction between an instructor and student. One of the benefits of implementing immediacy in the classroom is the increase in affecting learning (Christensen & Menzel, 1998; McCroskey & Richmond, 1992). Affective learning can be defined as "a process involving the acquisition or modification and maintenance of positive or negative attitudes toward the subject or teacher" (Rodríquez, Plax, & Kearney, 1996, p. 295). Christensen and Menzel (1998) found that moderate to high levels of immediacy resulted in increased levels of affective learning in university students.

Scholars have also linked the use of immediacy behaviors to an increase in cognitive learning (Christensen & Menzel, 1998; Gorham, 1988; Richmond, Gorham, McCroskey, 1987; McCroskey & Richmond, 1992). Cognitive learning "emphasizes comprehension and retention of knowledge" (Christophel, 1990, p. 323). Christensen and Menzel (1998) found that more immediacy leads to an increase in positive learning outcomes with Christophel (1990) uncovering that immediacy indirectly influences learning in a positive way. Richmond, Gorham, and McCroskey (1987) expanded this notion by finding that low immediacy may suppress such learning.

The benefits of immediacy behaviors don't exclusively affect learning in the classroom setting. It is also linked to student's rating of the course and instructor (Arbaugh, 2001). In fact, students enjoyed the teacher and classes more when they perceived the teachers as immediate (Mazer & Stowe, 2015; Titsworth, 2001). Furthermore, when instructor immediacy is used,

"students are more motivated to do their work, get involved, and pay attention in class" (Houser, 2012, p. 4). This motivation likely leads back to increased learning.

Instructor Credibility

Immediacy behavior has also been found to promote the perception of instructor credibility within the classroom (Mazer & Lowe, 2015; Witt & Kerssen-Griep, 2011). Instructors' expectations of students are typically stated in the course materials, but it is uncommon for students' expectations to be communicated to their instructors, thus making it difficult to define the credibility students may expect (Niehoff, Turnley, Sheu, & Yen, 2001). Research indicates that students will be more stimulated to learn the subject matter if they perceive their instructors to be credible sources of information (Drake, 1997). Source credibility is "a set of attitudes toward a source's expertise, trustworthiness, and dynamism which influence response to the source's message" (Infante, Rancer, & Womack, 1993, p.538). McCroskey and Teven (1999) conclude that instructor credibility is composed of three dimensions: competence, character, and caring.

Competence

Instructor competence refers to perceived instructor knowledge of the class subject (Frymier & Thompson, 1992). Competence within the classroom can also be defined as the instructor's "motivation, knowledge and skill to select effective and appropriate instructional messages which result in cognitive, affective and behavioral student learning" (Cornett-Devito & Worley, 2005, pg. 315). This definition, in turn, stresses the importance of appropriate communication within the classroom between the instructor and the students.

Using nonverbal immediacy behaviors such as eye contact, relaxed posture and smiling may give the students the impression of confidence in the instructor's knowledge of the topic. One

reason that these particular immediacy behaviors give the impression of competence is that they are displaying a lack of anxiety. It has been found that when an instructor displays a relaxed body posture, along with smiling at students, it is considered two the of the most impactful immediacy behaviors (Richmond, Gorham, McCroskey, 1987). This understanding also highlights the variety of communication skills that competent instructors must use to stimulate learning (Worley, Titsworth, Worley, & Cornett-DeVito, 2007).

Character

Instructor character is defined as instructor trustworthiness and goodness as a person as perceived by the students (Frymier & Thompson, 1992). Building credibility through trustworthiness is creating a classroom filled with trusting relationships within the academic workplace (Palmer, 1997). A great way to build these relationships is through rapport-talk, which is described as "the communication of shared experiences in order to establish interpersonal rapport" (Worley, et. al., 2007, pg. 220). This can be seen as the verbal immediacy tactic of starting conversations with your students before and after class. Once rapport is built between the students and the instructor, trust may begin to grow through the efforts of their rapport-talk and positive immediacy behaviors.

Caring

Lastly, instructor caring is the degree to which the instructor expresses concern about student welfare, perceived by the students (McCroskey & Teven, 1999), as well as treating students fairly, wanting them to succeed, giving them respect and offering them support (Filene, 2005). McCroskey & Teven (1999) found that empathy, understanding and responsiveness are three factors that likely lead students to perceive their instructor as caring. Batson (2009) defines empathy as "imagining how one would think and feel in the other's place" along with "projecting

oneself into another's situation" (pp. 6-7). According to these definitions, it is easy to understand that empathy and understanding are deeply interconnected as an instructor. If an instructor is able to feel in the other's place, it is inferred that the instructor would then be able to understand students' needs. Additionally, Hughey and Harper (1983) found that more "responsive instructors achieve the highest teacher/course ratings and less responsive instructors achieve the lowest teacher/course ratings" (p.17).

The use of both verbal and nonverbal immediacy behaviors can increase the students' perception of instructor caring. For example, returning graded assignments promptly is way that instructors can communicate responsiveness with their nonverbal behaviors. Another example of displaying care for students through the use of immediacy behaviors is using students' names while maintaining eye contact and standing near them during conversations with students. These behaviors give students the perception that the instructor is invested in them and recognizes them as an individual (Frymier, 2012).

Student Cooperation

Another benefit of effective instructor immediacy is an increase in student cooperation and student positive behavior (Neuliep, 1995; Plax, Kearney, McCroskey & Richmond, 1986). Plax, Kearney, McCroskey, and Richmond (1986) found that instructors utilizing immediacy behaviors are more effective than instructors who use behaviors which are considered less immediate. In fact, the instructors using more immediacy behaviors face less student resistance than the instructors who are not using immediacy behaviors. McCroskey and Richmond (1992) explain this phenomenon by understanding that "immediate teachers are liked far more than nonimmediate teachers" (p. 116). Thus, when a student feels closer an instructor, they are more likely to be motivated to participate in classroom activities and follow directions of the instructor. The

literature above gives a great overview of the benefits of immediacy behaviors in the university classroom setting. However, there is more scholarship which looks into biological sex, gender and their effect on the perception of immediacy behaviors.

Sex, Gender and Immediacy Behaviors

Previous literature offers an understanding of how appropriate instructor immediacy can affect a classroom. An individual's biological sex is tied to a set of societal expectations. These expectations carry into all facets of our lives, including the university classroom. Similar to sex, an individual's gender also comes with expectations that affect that way people perceive actions and intentions. The aim of this study is to understand how both students' biological sex and gender are affected by instructor immediacy behaviors. Thus, adding depth to the understanding of the impact, and limitations, of immediacy behaviors in the classroom.

Previous research offers the notion that instructors' biological sex influences the way that students perceive immediacy behaviors in the classroom. Female students may perceive excessive immediacy behaviors from female instructors as caring but the same behaviors from a male instructor is perceived as control or sexual harassment (Rester & Edwards, 2007). This difference in perception is likely to be a reflection of society. Specifically, a reflection of the sex stereotypes that have existed in the United States.

Research involving sex stereotypes has existed in psychology for many decades (Heilman, Block, & Martell, 1995). This research has increased further with the social emphasis on women's rights (Ashmore & Del Boca, 1979). Sex stereotypes are understood to be a group of psychological traits attributed to women and men (Williams & Bennett, 1975). Common sex stereotypes suggest that females are helpful, understanding, and emotional, with males being rational, competitive, and forceful (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz,

1972; Heilman, Block, & Martell, 1995). This translates to the possibility of students, particularly female, assessing male instructors has more forceful or aggressive in their actions.

Furthermore, it is possible that the ongoing research and national conversations about sex stereotypes have led students to be more aware of their actions as well as the behaviors of those around them. This may be particularly true for female students who are conscious of sex stereotypes of males. This could lead to an increased awareness of instructor behaviors.

Student sex also appears to determine how instructors are assessed. Female students were found to rate female instructors far higher than male instructors, while male students did not assess female and male instructors differently (Bachen, McLoughlin & Garcia, 1999). This difference in rating amongst student biological sex may be attributed to female students being more aware of the behaviors of male instructors. Having a better understanding of these findings can help instructors better utilize immediacy behaviors within a classroom. Below is an exploration of the research on instructor immediacy behaviors with regards to sex and gender.

It is important to recognize the differences between the terms sex and gender. Researchers such as Lorber (1996) have been challenging the academic community to reconsider the way the terms *sex* and *gender* are used in research. Unfortunately, "the concepts of both sex and gender are routinely overlooked, misused, misunderstood, confused, or conflated" (Greaves, 2012, p. 4) in research. It is important to understand the distinction between the two terms. This difference is vital to research as the way sex and gender are conceptualized impacts every area of research on the topic (Johnson & Repta, 2012). It should be noted that sex and gender are closely related in that biological sex leads to a particular set of societal expectations that lead to gender identify. However, in social science exploration within interpersonal communication

they are generally considered as separate concepts. Below is a brief explanation of the differences between the two terms.

Sex

Sex can be defined as "a biological construct that encapsulates the anatomical, physiological, genetic, and hormonal variation that exists in species" (Johnson & Repta, 2012, p. 19). Over time, the research of sex differences has evolved to be "loosened from the bounds of reproduction" (Einstein, 2012, p. 91). Studies comparing the sexes typically seek to discover the differences between the female and male sex.

Gender

Gender refers to "the socially prescribed and experienced dimensions of "femaleness" or "maleness" in a society, and is manifested at many levels" (Johnson, Greaves, & Repta, 2007, p. 5). An individual's gender consists of many different roles, experiences and limitations based on this social construct (Johnson & Repta, 2012). Gender, in and of itself, is a social construction which is not contingent on biological sex but is generally related.

Research has been done on the effects of both gender and sex on immediacy behaviors. Previous scholarship has found that female faculty members are subject to culturally conditioned gender stereotypes (Bennett, 1982). For example, Bennett (1982) found that women typically are rated more highly on formal evaluation items that describe interpersonal aspects of instruction when compared to their male counterparts. These differences are likely accounted for by women's greater perceived warmth and personal charisma. Additionally, scholarship states that women are negatively evaluated when they fail to meet this gender appropriate expectation (Bennett, 1982). This is the opposite of men, who were found to be judged independently from students' personal experiences with past male instructors. Past research is no limited to looking exclusively at

instructors' biological sex. Scholars uncovered that a combination of sex and situation influence how messages of affiliation and dominance are perceived (Edwards, 2000). The dimension of affiliation and dominance are one of many dimensions that individuals use to interpret relational messages (Burgoon & Hale, 1987). Edwards (2000) found that the context of any situation is most greatly affects the perception affiliation and dominance (Edwards, 2000). An example of context would be that "males perceive more affiliation than females in the scenario involving criticism" (pg. 19). Thus, the scenario that is taking place around the interaction does have an effect on the way an individual perceives the behaviors of the communicator.

Additionally, the previous literature discovered that men typically do not recognize resistance messages from women (Motley & Reeder, 1995). This should be considered while examining how biological sex may influence the perception of immediacy behaviors. It is possible that men's inability to recognize messages may not be limited to messages of resistance. This may be an indication that men are less likely to recognize nonverbal messages in general. Thus, male students may be less likely to be affected by immediacy behaviors in the classroom setting.

Female students may have experienced men not recognizing of resistance behaviors. This experience could cause female students to be more cautious of male instructors' immediacy behaviors. This is especially true considering that the goal of immediacy behaviors is to create a feeling of closeness. This feeling, however, could be misinterpreted as inappropriate to some students due to their personal history. Again, highlighting the effects of biological sex in communicating immediacy.

Scholars have noted that our lives operate around accepted distinctions between females and males. This includes an individual's "attitudes, characteristics, emotions, behaviors, preferences, abilities and responsibilities" (White, 2009, p. v). Yet, research suggests that gender,

as opposed to sex, is what may influence one's actions and behaviors (Wilson, 2001). Antithetic to sex, scholars have suggested that gender is not something that an individual is, but rather something that an individual performs (Golden, 2009).

Similar to biological sex, gender is a "multidimensional construct that refers to the different roles, responsibilities, limitations, and experiences provided to individuals based on their presenting sex/gender" (Johnson & Repta, 2012, pp. 20-21). For this study, gender is divided into four categories. Previously, scholars had viewed gender has existing on a spectrum with feminine and masculine opposing each other (Auster & Ohm, 2000). In the last number of decades, scholars began to challenge that notion. Researchers began to find that femininity and masculinity are orthogonal and don't not exist on a shared spectrum (Auster & Ohm, 2000). This study adopted Auster and Ohm's (2000) categories of gender. The categories are feminine, masculine, androgynous, and undifferentiated (Auster & Ohm, 2000). Individuals who are considered to possess feminine gender score high in feminine qualities and low in masculine qualities. People with masculine genders score high in masculinity and low in femininity. Androgynous individuals score high in both femininity and masculinity. Lastly, individuals with undifferentiated gender score low in femininity and masculinity.

Message interpretation

One of the ways in which sex may affect the perception of immediacy behaviors is through message interpretation. Message interpretation is understood to be "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" (Edwards, 1998, p. 54). Edwards (2000) found that message interpretation is often consistent with typical sex stereotypes. Similarly, Broverman, Vogel, Broverman, Clarkson, and Rosenkrantz (1972) found that women

are expected to be sensitive and expressive and men are expected to be competitive and dominant due to sex-role stereotypes. Additionally, past researchers have found that female students view many male professors as lacking interest in the student as an individual (Bachen, McLoughlin, and Garcia, 1999). As male instructors are seen as being less connected to the individual student, they may be simultaneously compared to their female counterparts. Thus, instructor immediacy behaviors will likely be judged through the lenses of sex-role stereotypes. With sex stereotypes suggesting that female instructors are more caring than men, it is possible that male instructors are interpreted as not only not caring but also more likely mistreat students.

These findings outline the differences in how biological sex, and the sex stereotypes, has been found to greatly influence the way that individuals perceive messages. This, in turn, highlights the need for research examining sex and gender's influence on perception of instructor immediacy behaviors. In addition to the biological sex and gender, factors such as the degree to which immediacy behaviors are used also play a role in message perception. One example of this is excessive immediacy behaviors.

Excessive Immediacy Behaviors

Immediacy behaviors have been operationalized by some scholars as existing on a continuum from nearly nonexistent to extremely high (Andersen & Andersen, 1982; Comstock, Rowell, & Bowers, 1995; Rester & Edwards, 2007). It may be impossible for an instructor to use absolutely no immediacy behaviors, as many behaviors are common in daily conversations. For example, it is likely that most teachers actively gesture while teaching regardless if they're attempting to create immediacy within the classroom (Richmond, Groham, McCroskey, 1987).

Conversely, it is possible for an instructor to have extremely high immediacy. This would be an instructor who constantly makes eye contact with their students, uses students' names, makes

small talk with students before and after class, as well as uses behaviors mentioned above (Frymier, 1993,1994, 2012; Frymier & Houser, 2000; McCroskey, Richmond & Stewart, 1986; Miller, Katt, Brown, & Sivo, 2014; Neuliep, 1995; Zhang, Oetzel, Gao, Wilcox, & Takai, 2007). Previous literature prescribes that instructors implement immediacy behaviors wherever possible with an understanding that increased immediacy benefit both the instructor and students. However, Comstock, Rowell, and Bowers (1995) found that excessive use of immediacy behaviors can "attenuate cognitive, affective and behavioral learning" (pg. 262). Rester and Edwards (2007) define excessive use of immediacy as "all of the behavioral elements of immediacy at increased magnitudes" (p. 36). An example of excessive immediacy behaviors is making eye contact too often or standing too close while talking with a student. To collect data, the scholars asked students to complete a questionnaire that focused on hypothetical interactions with instructors using excessive immediacy behaviors. Rester and Edwards (2007) found that excessive immediacy was affected by both students' and instructors' sex.

One of the most common interpretations of excessive immediacy behaviors is sexual harassment. In regards to student sex, female students are more likely than male students to label excessive teacher immediacy as sexual harassment (Rester & Edwards, 2007). Furthermore, past research found that students are more likely to view excessive teacher immediacy as sexual harassment when it takes place outside of the classroom (Rester & Edwards, 2007). This is likely due to the fact that a classroom is considered a public space with multiple people surrounding any interactions taking place between the student and instructor. Fusani (1994) suggested that any interaction in an instructor's office could be perceived as more immediate than interaction in the classroom.

The existing literature paints a clear picture of how the biological sex of students can affect the interpretation of excessive immediacy behaviors. Rester and Edwards (2007) also found that the biological sex of the instructor affects the students' meaning that they perceive from immediacy behaviors. An example of instructor sex affecting the interpretation of excessive immediacy behaviors is that "students are more likely to infer control messages from male professors and caring messages from female professors" (p. 47). Rester and Edwards (2007) propose that these results are likely linked to the students' use of sex-based stereotypes. Additionally, the power dynamics of a classroom, with the professor expected to have more authority, may contribute to the interpretation of the instructors' behaviors and intent.

Additionally, the literature suggests that approximately one half of female college students have experienced either inappropriate behavior or sexual harassment (Brooks & Perot, 1991; Cortina, Swan, Fitzgerald, & Waldo, 1998; Fitzgerald & Shullman, 1993) In fact, the behaviors are primarily from male instructors (Grauerholz, 1989). Statistics such as these lead to the idea that female students will be more aware and, potentially, wary of behaviors from their instructors. This is especially true when the student determines the behavior to be excessive.

According to the existing literature, it is possible that biological sex has a direct effect on how students interpret immediacy behaviors in general. For example, if a male student was to interact with an instructor who was over using immediacy behaviors, it is likely that the male student would be less likely to recognize the behaviors (Motley & Reeder, 1995) and also less likely to feel harassed by the instructor (Rester & Edwards, 2007). Rather, at worst, the student would likely feel that the instructor was being a stereotypical male. Based off of the literature, the interpretation would likely be very different if the student was a female.

Previous literature has begun to highlight the magnitude of the effects that biological sex

may have on perception of immediacy behaviors. It is important to recognize, however, that immediacy behaviors can affect other aspects of individuals. The purpose of this research is to understand how biological sex affect students' comfort with immediacy behaviors. In order to understand how a student's sex may affect their comfort with behaviors, it is important to clearly define student comfort.

Student Comfort

The meaning of comfort varies due to context. People often use the term comfort when asking if someone would be willing to do something that they may not want to be done. For example, they may ask if someone is comfortable with an idea or completing a favor. However, in the context of this article, comfort is the level of perceived psychological or physical distress to an individual. The lower the levels of perceived distress, the more comfortable the individual feels.

The use of immediacy behaviors enables an instructor to create a classroom where students feel more comfortable. Student comfort is important in the classroom as Dallimore, Hertenstein, and Platt (2010) found that students who were comfortable in class were more likely to master the material than students who did not feel as comfortable. Research suggests that student comfort has many benefits in the classroom. One finding advocates that if students are comfortable, they are more likely to be engaged in class (Fredricks, Blumenfeld, & Paris, 2004). Furthermore, comfortable students contribute to a better emotional classroom climate (Jia, Way, Ling, Yoshikawa, Chen, Hughes, & Lu, 2009) which, in turn, leads to more engaged students. Research also has shown that students are less likely to experience communication apprehension when faced with the opportunity of speaking in front of the class when they are comfortable (Ericson & Gardner, 1992; McCroskey, 1984). Each of the benefits of student comfort are linked

to increased academic performance in the classroom (Ericson and Gardner, 1992; Reyes, Brackett, Rivers, White, & Salovey, 2012). The following paragraphs are a brief description of student engagement, classroom emotional climate, and communication apprehension.

Student Engagement

Student engagement is considered to be fundamental to academic achievement (Reyes, Brackett, Rivers, White, & Salovey, 2012; VanDeGrift, Wolfman, Yasuhara, & Anderson, 2002). It can be defined as a student's "degree of active involvement in school through his or her thoughts, feelings, and actions" (Lewis, Huebner, Malone, & Valois, 2011). Fredricks, Blumenfeld, and Paris (2004) found that when students are engaged in the classroom, they are more likely to earn higher grades, as well as participate in classroom discussion and activities. Antithetically, students who are disengaged are more likely to become disruptive, have lower grades, and are more likely to drop out of school (Kaplan, Peck, & Kaplan, 1997).

Classroom Emotional Climate

The emotional climate of a classroom is created among the instructor and students' interaction (Jia et al., 2009). The classroom emotional climate is understood to be the quality of emotional and social interactions in the classroom between and among students and the instructor (Pianta, Belsky, Vandergrift, Houts, & Morrison, 2008; Reyes et al., 2012). Instructors can use immediacy behaviors to create classrooms that promote "student comfort and enjoyment by regularly expressing warmth toward, respect for, and interest in students and by encouraging their cooperation with one another" (Reyes et al., 2012, p. 2). This can be achieved by implementing immediate behaviors such as eye contact, smiling, using gestures, direct body orientation, as well as maintaining a relaxed posture (Christophel, 1990, Frymier, 1994; Houser,

2012; Mazer & Stowe, 2015; Miller, Katt, Brown, & Sivo, 2014; Özmen, 2011). These behaviors are likely to build a stronger sense of immediacy between the student and instructor which may improve the overall classroom emotional climate.

A positive emotional climate in the classroom increases students' academic performance (Pianta, Belsky, Vandergrift, Houts, & Morrison, 2008). Moreover, Reyes et al. (2012) found that "classrooms high in positive climate and low in negative climate are characterized by a sense of connectedness and belongingness, enjoyment and enthusiasm, and respect" (p. 8).

Communication Apprehension

Communication apprehension defined by McCroskey (1984) as "a broadly based anxiety related to oral communication" (p. 13). Communication apprehension can have negative effects in the classroom. Ericson and Gardner (1992) reported that students who rank high in communication apprehension tend not to remain in academic environments as long as students with low communication apprehension. Additionally, a student's immediacy decreased when their communication apprehension increased (O'Mara, Allen, Long, & Judd, 1996). These findings suggest that an instructors' use of immediacy behaviors may decrease student communication apprehension. In fact, Frymier (1993) found that students who had communication apprehension benefited from instructors who used immediacy behaviors. This is likely because the feeling of closeness created by the immediacy behaviors reduced the levels of anxiety that the student felt towards communicating in the classroom.

CHAPTER 2. RATIONALE

The literature suggests a set of common verbal and nonverbal behaviors which create immediacy between instructors and their students. These behaviors include gesturing, vocal inflections, the use of student names, facial expressions, using frequent head nods, forward lean and physical contact while communicating with students (Christophel, 1990, Frymier, 1994; Houser, 2012; Mazer & Stowe, 2015; Miller, Katt, Brown, & Sivo, 2014; Özmen, 2011). These behaviors have been found to increase student motivation (Hsu, 2010), promote positive student cooperation (Neuliep, 1995; Plax, Kearney, McCroskey, & Richmond, 1986) positively impact cognitive and affective learning (Christophel, 1990; Houser, 2012; Mazer & Stowe, 2015; Neuliep, 1995), as well as increase the perception of teacher credibility (Mazer & Stowe, 2015; Witt & Kerssen-Griep, 2011). While scholarship offers many benefits of the use of immediacy behaviors in the college classroom, these findings may change over time.

It is important to recognize that much of the past research on immediacy behaviors was conducted multiple decades ago. Society's view on the appropriateness of different nonverbal continually changes over time. While the past research has laid a foundation of understanding in regards to classroom immediacy behaviors, this study seeks to update the understanding of how students feel towards a number of nonverbal immediacy behaviors, specifically in regards to the students' biological sex and gender.

Scholars have found that men and women interpret immediacy behaviors differently (Metts, Cupach & Imahori, 1992; Edwards, 2000; Motley, & Reeder, 1995). It is likely that these differences are linked to sex stereotypes that have been reinforced by society. These stereotypes may explain female students rating female instructors far higher than male instructors, while male students did not assess female and male instructors differently (Bachen, McLoughlin &

Garcia, 1999). Thus, the propose of this study to seek if there may be a relationship between a students' sex and the amount of comfort students perceive in regards to instructor nonverbal immediacy behaviors.

Research suggests that male students are less likely to recognize the abnormal instructor behaviors (Motley & Reeder, 1995). In addition, men are less likely to feel harassed by the instructor (Rester & Edwards, 2007). Yet, the interpretation would likely be very different if the student was a female. For example, female students are more likely than male students to label excessive teacher immediacy as sexual harassment (Rester & Edwards, 2007). Due to these differences in interpretation between the sexes, the following hypothesis is proposed:

H_1: Male students will be more comfortable with instructor (of both sexes) immediacy behaviors than female students.

Additionally, Broverman, Vogel, Broverman, Clarkson, and Rosenkrantz (1972) discovered that biological sex-role stereotypes create expectations for women to be sensitive and expressive and men to be competitive and dominant due to sex-role stereotypes. These stereotypes may affect the way that students interpret messages from their instructors. For example, students are more likely to interpret their female instructor's messages as being caring and their male instructors' behaviors as being controlling (Rester & Edwards, 2007). Based off of this literature, the follow hypothesis is proposed:

H_2: Students (of both sexes) will be more comfortable with immediacy behaviors from female instructors than male instructors.

Previous literature uncovered that female students were found to rate female instructors far higher than male instructors, while male students did not assess female and male instructors differently (Bachen, McLoughlin & Garcia, 1999). This is likely due to the understanding from

previous literature that college students are more likely to interpret female instructor's messages as being caring and their male instructors' behaviors as being controlling (Rester & Edwards, 2007). It is also possible that female students are more aware of the behaviors going on around them (Motley & Reeder, 1995). With this understanding in mind, the following hypothesis is proposed:

H₃: Of the four possible combinations (sex of instructor by sex of student), female students with male instructors will be the least comfortable with immediacy behaviors.

In the case of this study, students' comfort with instructor nonverbal behaviors may be understood to an attitude, characteristic or preference. Therefore, measuring students' comfort based off their sex may not offer as much insight as students' gender. As a result of this gender exists on a fluid spectrum (Johnson, Greaves, & Repta, 2007) which suggests that dividing participants by female and male may ignore the gender differences among the participants. This study also seeks to understand how students' gender affects their comfort with instructor immediacy behaviors. With this in mind, this research seeks to answer the following research question in the second study:

RQ: Are there significant differences in student comfort with instructor immediacy behaviors amongst the four categories of gender?

CHAPTER 3. METHODS

This two-part study consisted of two separate methods of collecting data to answer the hypotheses and research question. After the completion of the first study, which examined the effects of students' biological sex on comfort with instructor immediacy behaviors, the author realized that a follow-up study examining the effects of student gender was necessary to create a more comprehensive study. Study one focused to support hypothesis 1-3. Study two aimed to answer the research question. The methods will be separated and clearly labeled in this section. The results and and discussion section will be a combination of the both studies.

Study 1

Participants

For this study, convenience sampling was used to recruit participants. A total of 187 students who were enrolled in an introductory communication course in a regional Midwest university participated in this study. The course meets a general education requirement at the university where the study took place. This led to having a participant group with a large variety of academic majors. There were 106 female participants and 81 male participants. Participants' ages ranged from eighteen to forty-nine with a mean age of twenty years old and a standard deviation of 3.6 years. Participants' class rank ranged from freshmen to senior with the majority of students being freshmen.

Procedures

Participants were asked to complete the 5-point, Likert-type survey (see appendix A). The survey was distributed to the participants at the end of the class period. The survey took approximately five minutes to complete. All participation was confidential and voluntary.

Instruments

For this study, students completed one instrument, a nine item, Likert-scale survey. This instrument measured students' perceptions of their comfortability of a hypothetical instructor's nonverbal immediacy behaviors within the classroom setting. Participants were asked to report how comfortable they would feel if their instructors displayed particular nonverbal immediacy behaviors on a 5-point Likert-type scale, from 1 (absolutely uncomfortable) to 5 (absolutely comfortable). The scale reported an alpha reliability of 0.79 with $M = 3.7$ and $SD = 0.60$. In addition to the scale items, the survey asked for basic demographic information, including age, sex and class rank. Approximately half of the participants received the survey which focused exclusively on a female instructor (see Appendix A) and the other half of participants received a survey which focused exclusively on a male instructor (see Appendix B).

Immediacy behaviors can be divided into two distinct categories: verbal and nonverbal behaviors. The focus of this study is specifically on nonverbal immediacy behaviors as they have been found to be more common than verbal immediacy behaviors (Frymier, 2012). Additionally, nonverbal behaviors could be divided into distinct categories to further explore the nuances of immediacy behaviors. Nonverbal immediacy behaviors are nonlinguistic actions which signal availability and communicate closeness (Andersen & Andersen, 1982). The instrument items were broken into three areas of nonverbal communication: proxemics, haptics and kinesics. These categories were selected as they were three common types of nonverbal behaviors that students could easily identify. Nonverbal behaviors such as vocalics may have been too specific for some students to be able to recognize in their daily lives.

Additionally, all three categories have been found to greatly impact immediacy behaviors. For example, past research found that proxemics behaviors such as facing the students, as opposed to facing the board, and walking around the classroom were considered two of the most meaningful

immediacy behaviors (Richmond, Gorham, & McCroskey, 1987). Haptics has been recognized as one of the single most powerful nonverbal immediacy cues (Infante, Rancer & Womack, 1993). Lastly, Kinesics behaviors were selected due to Richmond, Gorham and McCroskey (1987) finding a substantial correlation between gesturing and learning. Below is a brief explanation of these areas.

Proxemics.

Hall (1963), one of the first scholars to study proxemics, defined proxemics as the "study of how man [sic] unconsciously structures microspace" (p. 1003). Contemporary literature defines proxemics as "the use and perception of one's social and personal space, such as in seating and spatial arrangements, territoriality and conversational distance and orientation" (Prabhu, 2010, p. 8). Whenever anyone communicates, they display varying degrees of immediacy based on their distance from the receiver, angle towards the receiver and by interacting on the same or different physical plane (Andersen & Andersen, 1982). The more directly an individual faces another person, the more immediacy is being conveyed. Consequently, facing away from another person (back-to-back) is the least immediate (Andersen & Andersen, 1982). For this study, survey items five, eight and nine represent proxemic behaviors. For example, item five states, "She/he stands near your desk while teaching." Below is a brief description of the three areas of proxemics covered in the instrument.

Physical distance.

Physical distance refers to the physical space in the interaction between the communicator and the receiver. In the context of a university classroom, this refers to the space between the instructor and student(s). Mehrabian and Friar (1969) suggests that people stand closer to people they like as opposed to people who they do not like.

Body angle in the classroom.

Mehrabian (1971) suggests that communicators facing one another is considered more immediate than when standing side by side. Having one's back to the receiver is the least immediate position (Andersen & Andersen, 1982). Many instructors do not fully face their students. It is common for instructors to turn their back to their students to write on the blackboard, explain slides, etc. In doing so, the instructors convey the least amount of immediacy possible.

Sharing of physical plane. Interacting along the same physical plane is another way in which proxemics can be witnessed within instructor immediacy behaviors (Andersen & Andersen, 1982). Instructors can squat, crouch or sit in a nearby desk while interacting with students who are seated to share a physical plane.

Haptics

The term haptics is defined as "the use of touch and how touch is used to communicate" (McCroskey, Richmond & Stewart, 1986, p. 133). Understanding haptics in the classroom is critical as touch has been recognized to be powerful nonverbal immediacy cue (Infante, Rancer & Womack, 1993). For this study, survey items three, four and six represent haptic behaviors. For example, item three states, "She sits on desk/chair while teaching."

It should be noted that the amount and types of touch used in the classroom depend significantly on the students. One variable is age. For example, in elementary school classrooms, touch is not only permitted, but it is likely expected (Andersen & Andersen, 1982). However, in a college classroom, immediate touch can undoubtedly be misunderstood as sexual harassment.

Kinesics

The term kinesics refers to "any movement of the head, arms, legs, hands and so on" (McCroskey, Richmond & Stewart, 1986, p. 122). Kinesic behaviors that communicate immediacy

include using gestures that show approval, smiling, nodding of the head (Infante, Rancer & Womack, 1993; Christophel, 1990, Frymier, 1994; Houser, 2012; Mazer & Stowe, 2015). For this study, survey items one, three and eight represent kinesic behaviors. For example, item one states, "She smiles at you during class." Below is a brief description of the three kinesic behaviors covered in the instrument.

Smiling at student.

Previous literature has recognized that smiling is central to the concept of immediacy (Andersen & Andersen, 1982; Frymier, 2012; Mehrabian, 1971). Reece and Whitman (1962) discovered that smiling had positive effects on relationships which included increased interpersonal acceptance.

Sitting on Desk/Chair.

Previous literature suggests that teachers who are displaying relaxed body positions, such as sitting on a desk or chair while teaching, is often viewed as more credible, more confirming and produce greater learning (Frymier, 2012). Sitting on the desk in a classroom can communicate immediacy by "demonstrating freedom from stress and anxiety" (Andersen & Andersen, 1982, p. 106).

Hand gestures.

The kinesic behavior of gestural activity is another way that immediacy can be communicated. While teaching, hand gestures can convey interest and warmth to the students (Andersen & Andersen, 1982).

Study 2

Participants

A total of 102 students who were enrolled in an introductory communication course in a regional Midwest university participated in this study. Similar to the participants from the first study, the course used to recruit participants meets a general education requirement at the university where the study took place.. This allowed for a diverse sample of academic majors to be included in this study. The participants in the second study were not included in the first study. There were 58 female participants and 44 male participants. Participants' ages ranged from eighteen to twenty-six with a mean age of nineteen years old and a standard deviation of 1.3 years. Participants' class rank ranged from freshmen to senior with the majority of students being freshmen.

Procedures

Participants were asked to complete the 5-point, Likert-type comfort survey (see appendix A and B) as well as the 7-point, Likert-type gender assessment. The materials were distributed to the participants at the end of the class period. The survey took approximately ten minutes to complete. All participation was confidential and voluntary.

Instruments

For this study, students completed a two-part instrument. The participants first completed the same nine item, Likert-scale survey as completed in the previous study. This instrument measured students' perceptions of their comfortability of a hypothetical instructor's nonverbal immediacy behaviors within the classroom setting. Participants were asked to report how comfortable they would feel if their instructors displayed particular nonverbal immediacy behaviors on a 5-point Likert-type scale, from 1 (absolutely uncomfortable) to 5 (absolutely

comfortable). When being used for this study, the scale reported an alpha reliability of 0.85 with $M = 3.5$ and $SD = 1.39$. Identical to the first study, to account for instructors' biological sex, approximately half of the participants received the survey which focused exclusively on a female instructor (see Appendix A) and the other half of participants received a survey which focused exclusively on a male instructor (see Appendix B).

In addition to completing the student comfort instrument (see Appendix A & B), the participants of the second study were asked to complete a 40 item gender survey. This instrument was a modified version of the Bem Sex-Role Inventory (Bem, 1974). Based off of Auster and Ohm's (2000) instrument, the survey included only the twenty feminine and twenty masculine traits included on the original BSRI (Bem, 1974). The original androgynous terms were removed from the survey as past researchers (Auster & Ohm, 2000) have been able to determine participants' gender based off of the answers from the feminine and masculine items.

Participants were asked to rate forty characteristics in terms of how much these characteristics describe themselves on a 7-point Likert-type scale, from 1 (Never/almost never true) to 7 (Always/almost always true). These traits were placed in random order to not appear obviously grouped as feminine and masculine. The scale reported an alpha reliability of 0.82 on the feminine items and a $M = 4.8$ and $SD = 1.68$. The alpha reliability was 0.87 for the male items with $M = 4.9$ and $SD = 1.56$. The alpha reliability was not reported in the Auster and Ohm study.

CHAPTER 4. RESULTS

To develop results for hypothesis one, that male students will be more comfortable with instructors' immediacy behaviors than female students, participants' survey responses were analyzed by using an independent t-test run across both scenarios regarding instructors' biological sex. Running the t-test resulted in t (185) = 1.08; p= NS; group one (female students): M = 3.61; SD = 0.61; group two (male students): M = 3.70; SD = 0.59. These results reported as not statistically significant and did not support the hypothesis.

The results regarding hypothesis two, that students from both sexes will be more comfortable with immediacy behaviors from female instructors than male instructors, was tested by analyzing participants' survey responses with an independent t-test. Running the t-test resulted in t (185) = 1.30; p= NS; group one (female instructor): M = 3.70, SD = 0.69; group two (male instructor): M = 3.59, SD = 0.50. These results reported as not statistically significant and did not support the hypothesis.

The results regarding hypothesis three, that female students will be the least comfortable with immediacy behaviors from male instructors than any other combination of student and instructor, were discovered by analyzing participants' survey responses by using a two-way ANOVA (see Appendix D). An interaction between instructor sex and student sex could not be demonstrated F (1,183) = 0.24, p = ns. The ANOVA results did not support the hypothesis.

To answer research question one, which sought to understand if there are significant differences in student comfort with instructor immediacy behaviors amongst the four categories of gender, participants' survey responses were analyzed by using a one-way ANOVA. There was not substantial interaction between students' comfort and the gender of the student. This was demonstrated F (3, 98) = 0.838, p = 0.476. The ANOVA results (see Appendix D) indicate that

there was not a significant difference in the amount of comfort students feel with the different types of nonverbal behaviors and their reported gender.

Furthermore, post hoc analysis was ran for both class rank and age. The results of a Tukey analysis reported that there is not a significant difference between groups of class ranks. Similarly, the results reported that there is not a significant difference in student comfort divided by age of the students. An ANOVA was also run to analyze if there was a significant difference in student comfort based off of the instructors' sex. The results suggested that there is not a statistically significant difference.

Discussion

The results did not support the first or second hypothesis. While the data was reported as not significant, it should be noted that the average male student was more comfortable with instructor immediacy behaviors than the average female student, and that students did report higher comfort with female instructors than male instructors, but not to a degree of statistical significance. These results suggest that sex stereotypes likely take place in the classroom setting but do not greatly affect the comfort of a student in such an environment.

Additionally, the results did not support hypothesis 3, which postulated that female students will be the least comfortable with immediacy behaviors from male instructors than any other combination of student and instructor. The results suggested that there was no significant interaction between student sex and instructor sex in terms of the student's reported comfort. The results could be a product of a limitation of the study. It is very likely that capturing responses to this sort of question would have benefited from a qualitative design. For example, being able to ask participants about their comfort with instructors' behaviors in a semi-structured interview may

have led to more fruitful data that truly captured the comfort of students with instructor immediacy behaviors.

This could likely be that personal factors outside of biological sex determine student comfort. It has been stated that gender, as opposed to sex, may greatly influence an individuals' actions and attitude (Johnson, Greaves, & Repta, 2007). For example, a student's gender may have a greater effect on their comfort of an instructor's behavior rather than their sex. With the results of Study One suggesting that biological sex does not play a significant role in student comfort with instructor immediacy behaviors, the second study examines how students' gender may affect comfort with instructor immediacy behaviors was conducted.

The results of the second study indicated that differences in students' gender did not significantly affect their comfort with instructors' nonverbal immediacy behaviors. However, this does not suggest that gender does not play a significant role in students' comfort with immediacy behaviors. Rather, it is likely one of many factors which make up the individual and their preferences for interacting with others.

These studies highlight the fact that individuals are complex in many ways. Attempting to identify an individual's comfort based off of their biological anatomy or social identity proves difficult. Rather, it is likely necessary to understand the students themselves to understand their levels of comfort with instructor immediacy behavior. Furthermore, there are numerous variables that exist that shape an individual and their preferences that were not accounted for in this study.

For example, a student's past likely plays a large role in their comfort with any type of interactions with an instructor. If a student was to have positive experiences with their teachers during their earlier education, it is possible that they are more comfortable with their instructors at

the university level. It is equally possible that if a student had negative experiences in their earlier education that they would likely be less comfortable with instructor behaviors in general.

Culture is another example of a factor that likely shapes an individual's comfort with behaviors. In fact, the majority of the research conducted on immediacy has been "with subjects who represent a primarily Caucasian, middle-class U.S. culture" (McCroskey, Fayer, Richmond, Sallinen, & Barraclough, 1996, p. 298). Yet, it is well understood that the meanings behind nonverbal behaviors vary greatly amongst cultures (Hall, 1989; Hofstede, Hofstede, & Minkov, 2010; Sanders & Wiseman, 1990). For example, proxemics' rules/expectations, like many other forms of communication, is associated with culture (Samovar, Porter, & McDaniel, 2009). Furthermore, Liu, Volčič, & Gallois (2011) propose that haptics are also strongly tied to culture by suggesting that "when where, and whom we touch and what meanings we assign to touch differs widely across cultures" (p. 148). Additionally, Samovar, Porter, & McDaniel (2009) indicate that body language (kinesics) is culturally bound. Therefore, it can be anticipated that students from another culture may misinterpreted particular immediacy behaviors being lost in translation or holding a different meaning in their native culture.

The culture which made up the majority of student participants, Caucasian Americans from the Midwest, also affect the results of this two-part study. For example, the scenarios proposed in the instruments likely met the expectations of the participants. This is a result of the students sharing similar meanings to the behaviors discussed in the instrument. The familiarity with these behaviors may have contributed to relatively little difference in comfort amongst the student participants.

These findings don't address differences in culture. Without collecting nationality data, the study overlooks the differences amongst international students who participated in the studies.

Furthermore, international students are remarkably diverse in terms of their racial identity, behavior, religious and cultural practices, physical appearance, and the languages they speak (Spencer-Rodgers, 2001). Yet, international students are often seen as a collective outgroup joined "by the status of being labeled as 'foreign' and 'different'" (Urban & Orbe, 2007, p. 118). Furthermore, nearly all studies which examined nonverbal immediacy in classrooms have been conducted by studying the United States to Western or East Asian cultures (Santilli, Miller, & Katt, 2011). These past studies don't explore how other cultures may perceive immediacy behaviors.

It should also be noted that university classrooms are dynamic environments with a multitude of variables coexisting at one given moment. These environmental factors include the classroom seating arrangement, temperature of the room, as well as many other variables (Todd-Mancillas, 1982).

Classroom seating has been found to influence students' behaviors in the classroom. For example, scholars have found that there are students who sit in the front and center of the classroom exhibit higher levels of classroom participation when compared to students who sit in the back of the room or on the sides (Monetello, 1988). Additionally, when students sit in a circle or horseshoe arrangement encourages more discussion when compared to a traditional row and column arrangement (Todd-Mancillas, 1982). It is possible that the traditional seating is encourages less discussion amongst students but also creates a comfortable distance between the students and instructor. When an instructor leaves the front fraction of the classroom, that is traditionally exclusively occupied by the instructor, and enters into the students' seating area, it may likely be viewed as nontraditional. This behavior may then cause the students to perceive either increased immediacy or a decrease in comfort, depending on the students' perception of the behavior. Therefore, an instructor sitting in the circle or horseshoe shape with their students could

consequently make students feel more or less comfortable due to the untraditional classroom layout.

Classroom seating was not addressed in the instrument used. However, violation of the division of space in the traditional classroom was accounted for. Item 5, "She/he stands near you while teaching" is an example of an instructor stepping out of their fraction of the classroom which is customarily occupied by only the instructor and into the space that is commonly occupied by students only.

The temperature of a classroom greatly affects students (Todd-Mancillas, 1982; Wargocki, Wyon, Matysiak, & Irgens, 2005). In fact, Hannah (2013) suggests that if a room is too cold or too warm, it can make students sluggish or inattentive. It is plausible that this difference in temperature could change students' temperament in other ways as well. For example, if a classroom has a temperature that is extremely warm or cold, it is highly unlikely that students would be comfortable, regardless of the instructor's immediacy behaviors. For the same reason, it is possible that students could become less comfortable with instructor behaviors due to their discomfort in the classroom itself. This highlights the possibility of factors influencing students outside of instructor immediacy behaviors.

Additionally, other factors can influence these results. For example, the size of the university could affect the way that students feel towards instructors (Christensen & Menzel, 1998). If a student attends a small university or is majoring in a department with a small group of faculty, it is likely that the student will create their own impression of the instructor and immediacy behaviors may not have as much effect.

It is very possible that message interpretation cannot simply be reduced to one factor, such as an instructor's or student's sex or the gender of the student. It is to be expected that there is a

combination of factors which lead to a students' comfort, or lack thereof, with instructor nonverbal immediacy behaviors.

Limitations

Sex

Several limitations to this study should be considered. First, it should be noted that studying behavioral differences between sexes is not simple due to the fact that the behaviors of both sexes are not binary. Furthermore, there are variations of individuals within each sex (Craig, Harper & Loat, 2004). It should also be noted that while studying the differences between sexes there are often many cases of overlap of behaviors between the two sexes (Craig, Harper & Loat, 2004, Okami & Shackelford, 2001). This should limit the expectations of a clear, defined, differences between sexes in studies such as this.

Gender

Data concerning student gender was self-reported rather than collected through observation of behaviors. This may have created the opportunity for participants to report the gender qualities that they desire to possess rather than the gender qualities which they truly possess. This may have created an opportunity for the participants to complete the instrument in a way that would reflect on societal expectations for men or women of their age, sex, etc.

Additionally, gender is recognized as fluid (Baker, Kroehle, Patel, & Jacobs, 2018). Asking a student to report their gender at that given moment in time does not accurately capture their ever-changing gender qualities over time. It is possible that an individual is to enact different gender qualities depending on their surroundings. For example, if an individual is in a professional setting they are likely to display different gender qualities than if the same person

was spending time with their young child. The fluidity of gender makes it difficult to capture with an instrument.

Instrument

The degree of validity of the instrument utilized in this study was another limitation. The use of a Likert-type scale survey offered an adequate amount of data, yet restricted the ability to retrieve in-depth data from the participants. Additionally, it prevented the opportunity to ask the participants any sort of follow-up questions at the time of the completion of the survey. This lack of real time follow- up questions creates missed opportunities to ask participants to elaborate particular sections of their responses.

The scale had a variance of 0.515 with a range from 1 to 5. Which may be considered to be very a limited variance. This may indicate that the instrument was not accurately differentiating the comfort level of students. If this was the case, it may mean that students are experience greater differences in comfort in reaction to instructor immediacy behaviors than recorded in this two-part study.

Another limitation which should be discussed is the fact that students were asked to record their perceived comfort of an instructor's behavior. Although the participants were asked to base this perceived comfort off of a hypothetical instructor, they were likely relying on past university classroom experiences to form their perceived level of comfort. Thus, the students were relying on what they could remember of a previous classroom interaction. This could lead to less accurate results, as the students are recalling classroom behaviors, resulting in recall bias.

Recall bias "exists whenever historical self-report information is elicited from respondents" (Raphael, 1987, p. 167). These biases are caused by differences in the completeness or accuracy of participants' recollection. Additionally, it is important to be aware

of the difference between a biased recall and a recall that is simply inaccurate (Coughlin, 1990). These biases may have affected the participants'' responses and, therefore, skewing the results.

The time of distribution may have also influenced the students' responses. For example, the surveys were distributed at the end of the class period. While students were asked about a hypothetical instructor, it is possible that students instead rated their comfort with the instructor of their class. This may be especially true if the survey asked about a hypothetical instructor that had the same biological sex as the students' instructor.

The timing may have also influenced students to answer quickly, as opposed to accurately. Had the surveys been distributed during the beginning of the class periods, it is possible that students would have taken more time to complete the surveys. Rather, it is plausible that students were motivated to finish their survey quickly in order to be able to leave the classroom sooner.

One final limitation of the instrument used in this two-part study was the modified version of the Bem Sex-Role Inventory (Bem, 1974). This instrument featured 40 adjectives used to describe an individuals' traits. These adjectives were selected based on previous research that suggested 20 feminine and 20 masculine traits (Bem, 1974; Auster & Ohm, 2000).

Participants

An additional limitation to this study is the group of participants. The majority of the participating students were freshman. Furthermore, half of the data was collected during the fall semester. This means that some students may not truly know what to consider normal or abnormal in a college classroom. It is possible that the participating students were not familiar enough with the expectations of interactions within university classrooms to be able to accurately perceive their comfort with instructor nonverbal behaviors.

Implications for Future Research

The results of these studies suggest that students' biological sex and gender does not play a critical role in the comfort students have with instructor immediacy behaviors. Based on the survey data collected in these studies, there is reason to believe that there may be differences in students' comfort with particular areas of nonverbal behavior. Future research could examine the differences in the comfort between the different types of nonverbal behaviors which are common in the classroom. This could be particularly useful for instructors in understanding how to make the classroom a more comfortable space for their students.

Additionally, further research may consider how a student's culture effects their comfort with and interpretation of instructor immediacy behaviors. While there is minimal research on the topic of instructor immediacy in multicultural classrooms (Neuliep, 1995; Zhang, Guo, Wilcox, & Takai, 2007), research has not yet began exploring the how student culture may affect the students' comfort. Such an investigation could reveal any differences that may exist amongst cultures in comfort with various nonverbal behaviors in the classroom setting. Gaining an understanding of international students' perception of instructor immediacy behaviors would benefit universities with the number of international students increasing each year.

Future research could also examine if there are a set of classroom behaviors that could be considered to be non-immediacy behaviors. For example, a similar method could be used to collect data on students' comfort by using a different set of behaviors. The behaviors that are rated lower in comfort may lead to an understanding of non-immediacy classroom behaviors.

Conclusion

Previous research suggests that using immediacy behaviors results in many communicative benefits within the classroom (Christophel, 1990; Houser, 2012; Mazer & Stowe, 2015; Neuliep, 1995; Plax, Kearney, McCroskey & Richmond, 1986; Witt & Kerssen-Griep, 2011). Yet, scholars suggest that women and men interpret immediacy behaviors differently (Metts, Cupach & Imahori, 1992; Edwards, 2000; Motley, & Reeder, 1995). These differences are likely linked to sex stereotypes that have been reinforced by society. Different from biological sex, gender is a construct that refers to the expectations of roles, responsibilities, and limitations that have been determined and perpetuated by society (Johnson & Repta, 2012). These gender expectations may influence the perception of individuals. This two-part study sought to understand the differences in student comfort with nonverbal immediacy messages sent by instructors in a college classroom.

This pair of studies examined how students' biological sex may affect the students' comfort with these nonverbal behaviors. The studies also looked to understand how students' gender may affect their comfort with instructor immediacy behaviors. The findings add to the existing literature by suggesting that there is, in fact, not a significant difference amongst the biological sex or gender of students in regards to student comfort with instructor immediacy behaviors. Rather, the studies reveal that message interpretation cannot simply be reduced to one factor, such as an instructor's or student's sex or the gender of the student. It is to be expected that there is a combination of factors which lead to a students' comfort, or lack thereof, with instructor nonverbal immediacy behaviors. Furthermore, these findings suggest that when instructors use appropriate immediacy behaviors, the biological sex and gender of students does not significantly influence the students' perceived comfort.

Between-Subjects Factors

		N
studentsex	Female	106
	Male	81
instrsex	Female	93
	Male	94

Descriptive Statistics

Dependent Variable: totalcomfort

studentsex	instrsex	Mean	Std. Deviation	N
Female	Female	32.88	6.236	50
	Male	31.98	4.661	56
	Total	32.41	5.452	106
Male	Female	33.77	6.090	43
	Male	32.79	4.307	38
	Total	33.31	5.319	81
Total	Female	33.29	6.151	93
	Male	32.31	4.515	94
	Total	32.80	5.399	187

Tests of Between-Subjects Effects

Dependent Variable: totalcomfort

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	78.026[a]	3	26.009	.891	.447	.014
Intercept	197543.367	1	197543.367	6764.358	.000	.974
studentsex	32.853	1	32.853	1.125	.290	.006
instrsex	40.247	1	40.247	1.378	.242	.007
studentsex * instrsex	.073	1	.073	.003	.960	.000
Error	5344.252	183	29.204			
Total	206565.000	187				
Corrected Total	5422.278	186				

a. R Squared = .014 (Adjusted R Squared = -.002)

Figure 1: 2-way ANOVA

Descriptives

Comfort

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Fem	27	29.8148	5.43519	1.04600	27.6647	31.9649	20.00	45.00
Masc	22	32.7727	6.81687	1.45336	29.7503	35.7952	23.00	45.00
Andr	29	31.2069	7.05276	1.30966	28.5242	33.8896	17.00	45.00
Undf	24	31.4583	6.78860	1.38572	28.5918	34.3249	17.00	44.00
Total	102	31.2353	6.52820	.64639	29.9530	32.5176	17.00	45.00

ANOVA

Comfort

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	107.698	3	35.899	.838	.476
Within Groups	4196.655	98	42.823		
Total	4304.353	101			

Figure 2: 1-way Gender ANOVA

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APPENDIX A. SURVEYS

Comfort with Instructor Behavior

The purpose of this study is to collect information regarding the comfortability of instructor behaviors. Participation is completely anonymous and voluntary. Your participation does not affect your grade in this class nor will your participation, or lack thereof, be shared with your instructor. You may discontinue this survey at any time. If you submit this survey, you are granting your permission for your responses to be used in this research project.

 Age_____   Sex (circle one): Male   Female Other

Class rank (circle one): Freshmen   Sophomore   Junior   Senior   Other

Directions: For the nine questions below, please select your level of comfortability with each instructor behavior.

1. She smiles at you during class.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable

2. She touches your shoulder during class.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable

3. She sits on desk/chair while teaching.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable.

4. She hugs you after class.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable

5. She stands near your desk while teaching.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable

6. She pats you on the back during class.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable

7. She uses gestures while teaching.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable

8. She faces class while teaching.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable

9. She crouches/sits in a nearby desk while answering your question during individual or group work time.

   Absolutely Uncomfortable **1**   **2**   **3**   **4**   **5** Absolutely Comfortable

APPENDIX B. SURVEYS

Comfort with Instructor Behavior

The purpose of this study is to collect information regarding the comfortability of instructor behaviors. Participation is completely anonymous and voluntary. Your participation does not affect your grade in this class nor will your participation, or lack thereof, be shared with your instructor. You may discontinue this survey at any time. If you submit this survey, you are granting your permission for your responses to be used in this research project.

Age_____ Sex (circle one): Male Female Other

Class rank (circle one): Freshmen Sophomore Junior Senior Other

Directions: For the nine questions below, please select your level of comfortability with each instructor behavior.

1. He smiles at you during class.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable

2. He touches your shoulder during class.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable

3. He sits on desk/chair while teaching.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable.

4. He hugs you after class.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable

5. He stands near your desk while teaching.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable

6. He pats you on the back during class.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable

7. He uses gestures while teaching.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable

8. He faces class while teaching.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable

9. He crouches/sits in a nearby desk while answering your question during individual or group work time.

Absolutely Uncomfortable **1** **2** **3** **4** **5** Absolutely Comfortable

APPENDIX C. SURVEYS

Please rate the following characteristics in terms of how much these characteristics describe yourself.

1. Affectionate
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

2. Competitive
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

3. Defends own beliefs
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

4. Feminine
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

5. Aggressive
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

6. Compassionate
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

7. Eager to soothe hurt feelings
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

8. Loyal
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

9. Acts as a leader
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

10. Flatterable
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

11. Gentle
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

12. Assertive
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

13. Has leadership abilities
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

14. Independent
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

15. Ambitious

Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

16. Loves children
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

17. Makes decisions easily
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

18. Self-reliant
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

19. Forceful
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

20. Warm
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

21. Gullible
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

22. Self-sufficient
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

23. Childlike
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

24. Tender
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

25. Athletic
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

26. Shy
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

27. Individualistic
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

28. Soft spoken
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

29. Masculine
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

30. Strong personality
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

31. Does not use harsh language
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

32. Sympathetic
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

33. Analytical
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

34. Cheerful
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

35. Understanding
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

36. Willing to take a stand
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

37. Dominant
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

38. Willing to take risks
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

39. Yielding
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true

40. Sensitive to the needs of others
Never/almost never true **1**   **2**   **3**   **4**   **5**   **6**   **7** Always/almost always true