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**The Impact of Gender on Instructor Nonverbal Communication from the
Perspectives of Learner Affect and Learners' Perceptions of Instructor**

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Abstract

Past research on instructor nonverbal behaviors has focused on the effects of immediacy and dominance on cognitive learning, affective learning, and learners' perceptions of instructor. This study built on that research by removing the focus on immediacy and dominance behaviors; rather, the authors compiled a broad list of nonverbal behaviors representative of those instructors use in the classroom. Furthermore, student respondent gender and instructor gender were coded to determine their impact on findings. Key findings included few gender differences in the student responses; instead, the major difference occurred in the nonverbal behaviors students identified for male and female instructors.

The Impact of Gender on Instructor Nonverbal Communication from the Perspectives of Learner Affect and Learners' Perceptions of Instructor

Introduction

A girl bats her eyelashes at a boy she's interested in. A man puts his arm around his elderly father's shoulders. A mother raises her eyebrows at her unruly child. Each of these behaviors exists within the context of a relationship and has meaning in that relationship. In the same way, a teacher's nonverbal behaviors have meaning within the context of a teacher-student relationship (Grant & Hennings, 1971). In fact, "because the teacher is vitally concerned with the communication of meanings, in the encounter between teacher and student physical motions are even more significant than in the non-structured encounter between persons" (Grant & Hennings, 1971, pgs. 3-4).

In their 2001 study, Semykina and Rsyhova looked at the extent to which teachers understand the specific features of nonverbal behaviors. They found that 56 percent of the teachers in their study recognized only one feature of nonverbal communication, while ten percent of the teachers could not recognize any features of nonverbal communication. This demonstrates a need for teachers to better understand what nonverbal behavior is, and how it impacts their classroom communication.

According to Witt and Wheelless (2001, p. 327), "the communication behaviors employed by teachers play a strategic role in student learning outcomes." In the past, teachers' nonverbal behaviors have been explored for the role they have on affective learning, cognitive learning, and student perception of teacher (Andersen, 1979, 1985; Richmond et al., 1987; Witt and Wheelless, 2001; Witt, Wheelless, & Allen, 2004; Mehrabian, 1969, 1971, 1981; Rodriguez, Plax, & Kearney, 1996; Burgoon, 1994; Coker & Burgoon, 1987; Patterson, 1983; Chamberlin, 2000; Cappella, 1985; Dovidio & Ellyson, 1985; Harper, 1985; Schwartz, Tesser, & Powell, 1982; Spiegal & Machotka, 1974; Chesebro, 2003; Thweatt, 1999; Rocca, 2004; and Hendrix, 1997). For instance, Witt and Wheelless (2001) looked at both verbal and nonverbal immediacy and their effect on recall, learning loss, and affective learning. Witt, Wheelless, and Allen (2004) conducted a meta-analysis of 81 studies to examine teachers' verbal and nonverbal immediacy and the effect on learning outcomes. Rocca (2004) studied instructor nonverbal immediacy and verbal aggressiveness as it applied to student attendance. Chamberlin (2000) considered both immediacy and dominance nonverbal behaviors and the way they affect a teachers' perceived trustworthiness.

These studies seem to have a narrow focus on nonverbal immediacy (sometimes paired with a verbal variable) and / or nonverbal dominance (sometimes paired with a verbal variable). While the findings of these studies definitely advance scholars' understanding of the effects of instructor nonverbal behaviors, the narrow focus of the studies may have caused certain nonverbal behaviors and their effects to be ignored. The field seems to be lacking in studies that look at universal nonverbal behaviors, affective learning, cognitive learning, and students' perceptions of instructor. Furthermore, there appear to be few studies that consider demographic characteristics of instructors and how those characteristics differentiate the way their nonverbal behaviors are received. There are a few studies of note that have branched out into this area: Hendrix (1997) explored nonverbal communication and students' perceptions of black and white professors; Arbuckle and Williams (2003) considered age and gender stereotypes when they looked at the way students evaluate verbal expressiveness and nonverbal vocal qualities of speakers of varying age and gender; Menzel and Carrell (1999) studied perceived learning,

willingness to talk, verbal immediacy, and nonverbal immediacy and grouped their responses by student and teacher gender.

This research is intended to build on the earlier research, while stretching to allow new information to emerge. The authors followed the lead of earlier scholars in focusing on learner affect and learners' perceptions of instructors. The authors veered from previous research in that the nonverbal behaviors studied were not limited to immediacy or dominance behaviors; rather, the authors attempted to compile a broad list of nonverbal behaviors that were representative of those any instructor might use in the classroom. The authors also coded the gender of the student respondent and the instructor gender so that those variables could be analyzed for their impact on the findings. It is the authors' hope that the findings presented in this paper will serve the scholarly community by adding in a constructive way to the body of knowledge about the effects instructor nonverbal behaviors. Furthermore, the intent of this research is to provide instructors with the knowledge to become aware and manage their nonverbal behaviors more effectively. In effect, instructors may be able to use the findings to develop a prioritized growth plan for their nonverbal behaviors, based on the emotions they want to foster or avoid, as well as the perceptions they want to foster or avoid.

Review of Literature

In the following review of literature, previous research has been organized into the following categories: nonverbal behaviors, instructor nonverbal behaviors and learner affect, and instructor nonverbal behaviors and learner perceptions of teaching effectiveness.

Nonverbal Behaviors

As humans interact, they commit a steady stream of verbal and nonverbal actions that send messages about their attitudes, feelings, and personality; conversely, those they communicate with are left to figure out what the messages mean (Knapp & Hall, 2002). The spoken word falls into the category of verbal communication and its related studies; all other actions, including the way verbal language is expressed, fall into the category of nonverbal studies. Nonverbal communication includes the way humans use social and personal space; the way humans move their body parts; the way the vocal cords change the quality of the human voice; and the sounds emitted from the pharyngeal, oral, or nasal cavities (Knapp & Hall, 2002).

Argyle (1988; as cited by Knapp & Hall, 2002) explained that humans use nonverbal behaviors to express emotion, express an interpersonal attitude, portray their personality, and manage conversational elements such as demonstrating attention and taking turns in conversation. Even when a person has an intended message to send using nonverbal behaviors, the receiver may interpret the meaning in a different way. Mehrabian (1969, 1971; as cited by Knapp & Hall, 2002) noted three categories of meaning that could be applied to nonverbal behaviors. The first was immediacy, which he described as a human tendency to evaluate the behavior as good or bad, positive or negative. The second category of meaning was status; receivers determine our status, or social position, based on our nonverbal behaviors. The final category of meaning Mehrabian described was responsiveness; this category describes the human perception of activity as slow or fast, active or passive.

Grant and Hennings (1971) specifically looked at teachers, and divided teacher nonverbal behaviors into two categories: instructional and personal. Instructional behaviors are those which facilitate teaching, such as reading materials for teaching or directing student attention (Grant & Hennings, 1971). Instructional motions can be further broken down into subcategories: conducting motions, such as those which control participation or get attention; acting motions, such as those which emphasize, illustrate, or pantomime; and wielding motions, such as those

which include “interaction with objects, materials, or parts of the room” (Grant & Hennings, 1971, p. 13). Personal behaviors, on the other hand, include individualized mannerisms or adjustments, such as tugging on an earlobe when nervous or adjusting a skirt that has ridden too high (Grant & Hennings, 1971).

Nonverbal Behaviors and Learner Affect

Mottet (2000) discussed learners’ nonverbal responsiveness in terms of immediacy, because immediacy has been shown to improve affective learning in the classroom (Andersen, 1979; as cited by Mottet, 2000). Mottet (2000) referenced Richmond et al. (1987) as having identified 14 nonverbal immediacy behaviors including smiling at students, moving around the classroom while teaching, using a variety of vocal expressions, and having a relaxed body position while teaching. Andersen, 1985; Burgoon, 1994; Coker & Burgoon, 1987; Mehrabian, 1971; Patterson, 1983 (as cited by Chamberlin, 2000) identified physical closeness, increased direct body and facial orientation, eye gaze, smiling, head nods, and frequent and animated gesturing as behaviors that elevate immediacy and involvement in the classroom.

Witt and Wheelless (2001) explained that immediacy has its roots in approach-avoidance theory. Approach-avoidance theory states that “people approach what they like and avoid what they don’t like” (Mehrabian, 1981, p. 22; as cited by Witt & Wheelless, 2001). Rodriguez, Plax, & Kearney (1996) conducted a study to find out how immediacy behaviors impact affective learning and cognitive learning. The authors found support for the Affective Learning Model, which states that the connection between teacher nonverbal immediacy and cognitive learning is mediated by the students’ affective learning (Rodriguez et al., 1996). In effect, teachers use immediacy nonverbal behaviors in order to get students to like them, which opens the door for approaching students and increasing their learning (Rodriguez et al., 1996).

Chamberlin (2000) explained that while immediacy nonverbal behaviors can have positive consequences for teachers, dominance nonverbal behaviors can have the opposite effect. The author described dominance nonverbal behaviors as those “that reinforce the traditional hierarchical nature of the teacher-supervisor relationship” (Chamberlin, 2000, p. 355). Nonverbal behaviors associated with dominance are using a relaxed posture, indirect body orientation, physical placement (at front of classroom, behind a lectern, etc.), using larger amounts of physical space, limited eye contact, protection of territory (Cappella, 1985; Dovidio & Ellyson, 1985; Harper, 1985; Mehrabian, 1971; Schwartz, Tesser, & Powell, 1982; and Spiegel & Machotka, 1974; as cited by Chamberlin, 2000).

Menzel and Carrell (1999) studied perceived learning, willingness to talk, verbal immediacy, and nonverbal immediacy and grouped their responses by student and teacher gender. They conducted research with 256 undergraduate students and found that a student’s willingness to talk in class was positively associated with instructor verbal immediacy and not related to gender. The amount of learning the student perceived to have taken place, however, was positively associated with both instructor verbal immediacy and the sex of the instructor being the same as the student.

Based on the research literature, research question one was posed:

RQ1: If learners are given a list of emotions they experience while in a classroom, what nonverbal instructor behaviors would they identify as causing those emotions?

Nonverbal Behaviors and Learner Perceptions of Teaching Effectiveness

Chamberlin (2000) reported that teachers who displayed nonverbal behaviors of immediacy and involvement were perceived as likeable, warm, accessible, approachable, having a positive attitude. Chamberlin (2000) expanded on those findings, and linked nonverbal behaviors of immediacy and involvement to positive student-teacher relationships, positive impressions of instructor competence, increased student motivation, increased teacher credibility, positive teacher evaluations. Thweatt, 1999 (as cited by Rocca, 2004) found instructor immediacy behaviors to positively affect students' perceptions of an instructor as competent, caring, and trustworthy.

Hendrix (1997) explored nonverbal communication and students' perceptions of black and white professors. The study participants defined credible instructors as either knowledgeable or knowledgeable and a good teacher (Hendrix, 1997). In terms of perceived differences in black and white instructors, the students listed the same verbal and nonverbal behaviors demonstrating credibility for both black and white professors (Hendrix, 1997). Hendrix (1997) did report that students looked for more evidence of academic and experiential credentials before deeming black instructors credible.

Arbuckle and Williams (2003) considered age and gender stereotypes when they looked at the way 352 undergraduate students evaluate verbal expressiveness and nonverbal vocal qualities of speakers of varying age and gender. The authors controlled for visual cues by using an audiotape of a professor speaking, and presenting the material identically (Arbuckle & Williams, 2003). Students' evaluations of speaking enthusiastically and using a meaningful voice tone during class lecture were higher for instructors they perceived as young and male than they were for instructors they perceived as young and female, old and male, and old and female (Arbuckle & Williams, 2003).

One concept that has not been discussed with relevance to students' perceptions of teachers is that of communal and agentic characteristics. These terms come from the study of sex stereotypes and social roles. Traditionally, women have been thought to exhibit communal characteristics which cause them to be viewed as warm, giving, cooperative, and focused on interpersonal relationships; men have been thought to exhibit agentic characteristics which cause them to be viewed as independent, task-oriented, dominant, and competitive (Bem, 1974, Eagly, 1987, and Gilligan, 1982; as cited by Myers et al., 2005). This raises questions about whether students' perceptions of teachers can be limited to an immediacy/dominance categorization without a sub-categorization for teacher sex.

From this body of research, research question two was created:

RQ2: If students are given a list of perceptions they might have of an instructor, what nonverbal instructor behaviors would they identify as causing those perceptions?

Method

Participants

Participants in the present study were 149 students from a large Southwestern university. Of the 149 subjects, 79 (53.0%) were men, 70 (47.0%) were women. The sample consisted of 30 (20.1%) first year students, 37 (24.8%) sophomores, 34 (22.8%) juniors, 33 (22.2%) seniors, and 15 (10.1%) that identified themselves as "other". In addition, 5 (3.4%) were African-American, 120 (80.5%) were Caucasian, 15 (10.1%) were Hispanic, 3 (2.0%) were Asian/Pacific Islander

and 6 (4.0) classified themselves as “other”. All participants received course credit for their participation.

Measures

Instructor Nonverbal Communication Questionnaire. In order to assess the importance of nonverbal communication in the classroom, a questionnaire was created to address learners’ emotions based on instructor nonverbal behavior and learners’ perceptions of the instructor based on the instructor’s nonverbal behavior. Participants were randomly given a questionnaire concerning either a male or female instructor. In addition, participants were instructed to reflect on how their instructor’s nonverbal communication affects their feelings and their view of their instructor.

Students were asked 20 fill-in-the-blank statements about their perceptions of their instructor. The authors used a ten-item, bi-polar design to assess learner affect (feel important/feel unimportant, feel frustrated/feel content, feel engaged/feel bored, feel nervous/feel confident, feel comfortable/feel uncomfortable) and a ten-item, bi-polar design to assess learners’ perceptions of instructor (competent/incompetent, organized/disorganized, caring/uncaring, trustworthy/untrustworthy, effective/ineffective). For instance, one statement on the questionnaire stated: “I feel important when instructors _____, _____, and _____.” Each question had three blanks so that students could pick the top three nonverbal behaviors that they perceived to answer that particular question. Each statement dealt with one of the feelings or perceptions listed above.

Students were given a word bank that contained 39 nonverbal behaviors that teachers typically display in the classroom. The word bank included both instructional motions, such as moving around the classroom while teaching and nodding head at a student, and personal motions, such as blushing and drumming fingers. Students could pick from any of the 39 nonverbal behaviors to complete their questionnaire. Cronbach’s alpha for the scale was .70.

Data Analysis

In order to identify differences for each of the statements, a multiple response analysis was conducted. Each of the three nonverbal behaviors were categorized together in order to develop frequencies for each statement. In addition, multiple response cross-tabs were computed to look at the differences between the sex of the instructor and perceptions of the nonverbal behavior.

Results

The first research question looked at which nonverbal behaviors instructors use to make the students feel a certain way. When students were asked what nonverbal instructor behaviors make them feel important, the top three answers were show attention on face when I speak, make frequent eye contact with me, and smile at me. When the students were asked about feelings of unimportance, the top three answers were frown at me, drum their fingers, and mumble. When students were asked about feelings of frustration, the top three answers were mumble, drum their fingers, and use non-words. When students were asked about feeling content, the top three answers were speak with varied tone, speak loudly, and stand with relaxed body posture. When students were asked about feelings of being engaged, the top three answers were moving around the classroom while teaching, speak with a varied tone and show attention on face when I speak. When students were asked about feelings of boredom, the top three answers were speak with the same tone, stand behind desk or podium, and pause in speech. When asked about feelings of nervousness, the students’ top three answers were shrug, make extended eye contact with me, and touch my shoulder/arm. When asked about feelings of confidence, the top three answers

were smile at me, show attention on face when I speak, and nod their head at me. When asked about what nonverbal behaviors instructors use to make students feel comfortable, the top three answers were smile at me, stand with relaxed body posture, and move around classroom while teaching. When asked about what nonverbal behaviors instructors use to make students feel uncomfortable, the top three answers were make extended eye contact with me, touch my shoulder/arm, and frown at me.

The responses of male and female students were very similar across all emotions. Some differences did exist, however, in the data gathered for female instructors and male instructors. In reference to feeling important, unimportant, engaged, bored, confident, and uncomfortable, the differences between the nonverbal behaviors of male and female instructors were minor. In all of these cases, students agreed on two of the three top nonverbal behaviors they used to describe male and female instructors. For two of the emotions, frustration and comfortable, students listed the exact same top nonverbal behaviors for both male and female instructors. The biggest differences were found in the nonverbal behaviors students referenced as causing feelings of contentment and nervousness. These differences are illustrated in Figures 1 and 2.

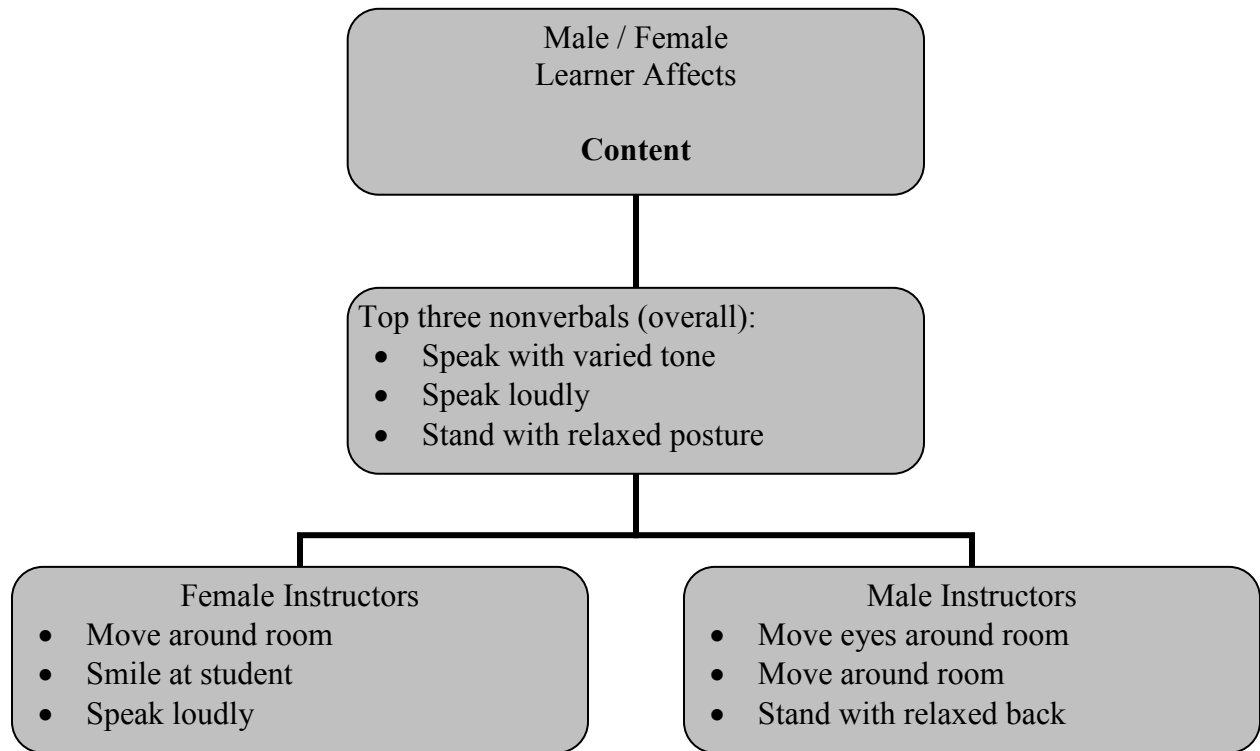


Figure 1. Differences in the nonverbal behaviors students identify from male and female instructors as causing students to feel content.

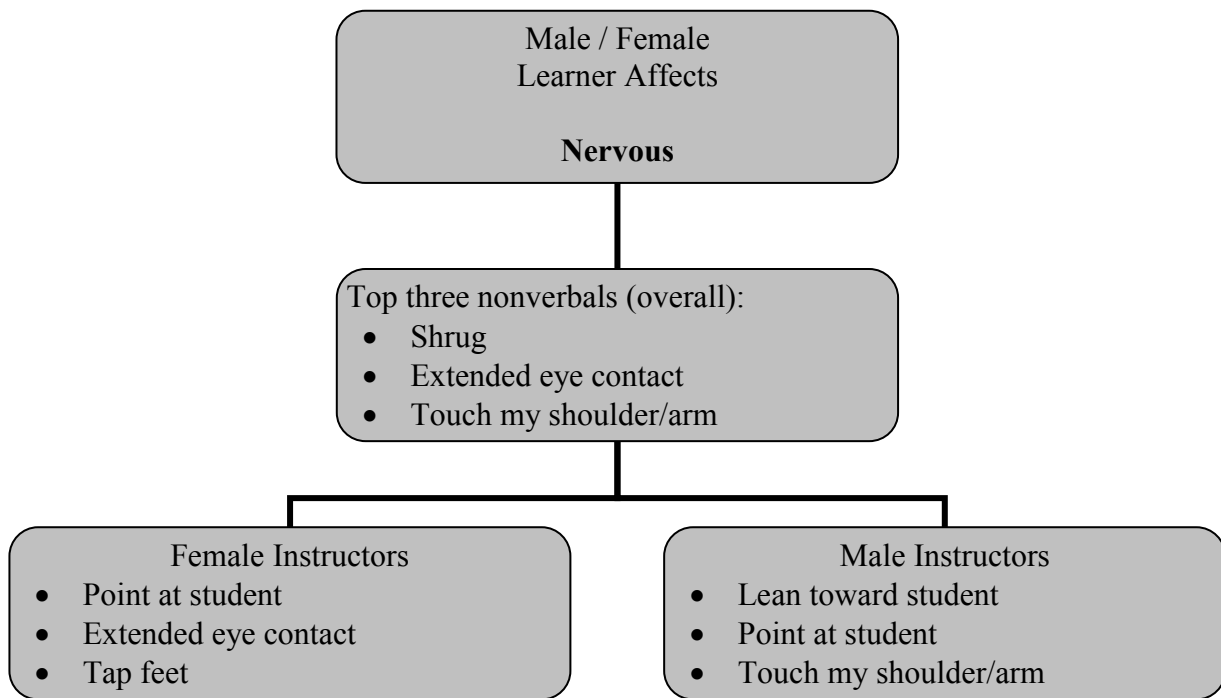


Figure 2. Differences in the nonverbal behaviors students identify from male and female instructors as causing students to feel nervous.

The second research question looked at the nonverbal behaviors instructors demonstrate, and the resulting perceptions students form of those instructors. When asked about perceiving an instructor as competent, the students' top three answers were move around the classroom while teaching, speak loudly, and speak with a varied tone. When asked about perceiving an instructor as incompetent, the top three answers were pause in speech, use non-words, and grunt. When asked about perceiving an instructor as organized, the students' top three answers were move around the classroom while teaching, stand up straight, and speak loudly. When asked about perceiving an instructor as disorganized, the top three answers were mumble, use non-words, and drum their fingers. When asked about perceiving an instructor as caring, the top three answers were smile at me, show attention on face when I speak, and touch my shoulder/arm. When asked about perceiving an instructor as uncaring, the top three answers were frown at me, grimace, and drum their fingers. When asked about perceiving an instructor as trustworthy, the top three answers were smile at me, show attention on face when I speak, and make frequent eye contact. When asked about perceiving an instructor as untrustworthy, the top three answers were mumble, grunt, and smirk at me. When asked about perceiving an instructor as effective, the top three answers were speak loudly, move around the classroom, and gesture with their arms/hands while talking. When asked about perceiving an instructor as ineffective, the top three answers were mumbling, speak with same tone, and use non-words.

The responses of male and female students were very similar across all perceptions. Some differences did exist, however, in the data gathered for female instructors and male instructors. In reference to perceiving instructors as incompetent, organized, trustworthy, and untrustworthy, the differences between the nonverbal behaviors of male and female instructors were minor. For each of these perceptions, students agreed on two of the three top nonverbal

behaviors they used to describe male and female instructors. For five of the perceptions – competent, disorganized, caring, effective, and ineffective – students listed the exact same top nonverbal behaviors for both male and female instructors. The biggest difference was found in the nonverbal behaviors students referenced as causing a male or female instructor to be perceived as uncaring. These differences are illustrated in Figure 3.

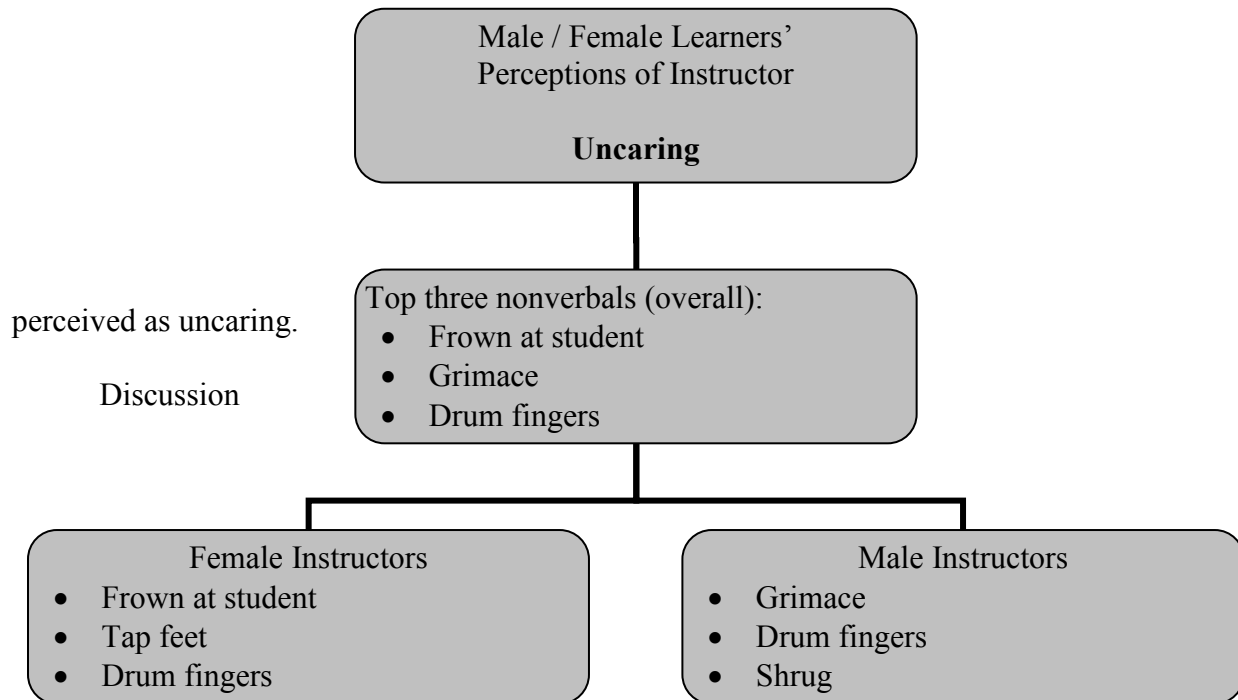


Figure 3. Differences in the nonverbal behaviors students identify from male and female instructors as causing instructors to be

Findings

Overall, participants in this study indicated there were certain instructor nonverbal behaviors that students perceive as beneficial and some that are unhelpful, regardless of the gender of the instructor. Instructor behaviors that were generally perceived as positive are smiling, vocal variation, moving around the classroom, showing attention on face, making eye contact with students, and standing with a relaxed posture. Instructor behaviors that were generally perceived as negative are frowning at students, drumming fingers, mumbling, and using non-words. Students were generally more varied in the nonverbal behaviors they identified as negative.

These findings seem to partially support the body of research on immediacy, perhaps providing richer information and insight on behaviors that have not been considered immediate nonverbal behaviors previously. These findings also support the consideration of a category of behaviors connected to instructor incompetence; this would encompass the nonverbal behaviors students referenced when perceiving an instructor as incompetent, disorganized, or ineffective. The behaviors students listed were neither wholly immediate nor wholly dominant in their characteristics.

Also, results revealed that students perceived differences among the nonverbal behaviors that male and female instructors display in the classroom and the influences of these behaviors on students' feelings and perceptions. These differences were particularly evident for students' feelings of contentment and nervousness and students' perceptions of instructors as uncaring. While the gender differences in these areas are striking, so is the lack of difference that was evident in students' feelings of frustration and comfort and students' perceptions of instructors as competent, disorganized, caring, effective, and ineffective.

Limitations

This study is limited in its generalizability. Due to the fact that all participants were enrolled in a university at either the undergraduate or graduate level, these findings are limited to the relationship between college students and their instructors. Furthermore, the results are limited to the southwest, as nonverbal behaviors and the resulting learner affect and learner perceptions of instructor may be regional. Finally, the participants in this study were overwhelmingly Caucasian. There may be differences in the perception of nonverbal cues among students of other races or cultures. This should be considered in future studies.

This study is also limited in the statistical inferences that can be drawn from its data. The researchers purposely developed a multiple response survey to increase the depth of data gathered for each variable. The result of this choice, however, was an inability to analyze the data using any statistical method more complicated than frequencies and crosstabs. This lessens the researchers' ability to speak to strength and power in relation to the findings.

Implications

This study builds on previous research in the areas of nonverbal immediacy and dominance (Richmond, Gorham, & McCroskey, 1987; Rocca, 2004). Behaviors, such as smiling at students, moving around the classroom while teaching, using a variety of vocal expressions, and having a relaxed body position, were verified as being positive by virtue of their connection to positive learner affects and positive perceptions of instructors. Conversely, this study casts a shadow of doubt on some behaviors that were previously considered to be immediate nonverbal behaviors. Participants in this study were conflicted on behaviors such as moving nearer a student, touching a student on the arm or shoulder, eye contact with students, and gesturing. It seems these behaviors may sometimes have a negative connotation. This study also raises questions about whether immediate and dominant nonverbal behaviors alone constitute the full range of important nonverbal behaviors that instructors should consider. There seemed to be similarities in the nonverbal behaviors that caused students to perceive an instructor as incompetent, disorganized, or ineffective.

This study also points to important differences in the gender of the instructor sending the nonverbal messages. Although the findings of this study don't point to the reasons the genders are viewed differently, the findings do cast doubt on the idea that immediacy behaviors have universal appeal. These findings demonstrate that the gender of the instructor has some bearing on whether the nonverbal behaviors have positive or negative effects.

Future Research

In order to build on the findings of this study, qualitative research should be conducted to gain a better understanding of the way students perceive gender differences in instructor nonverbal behaviors. In-depth interviews or focus groups would provide more specific information to describe this phenomenon. Furthermore, qualitative methods could also shed light on the reason students perceive some nonverbal behaviors in both positive and negative lights. In order to determine the strength and significance of these findings, future research should attempt

to triangulate findings with quantitative research that can be examined with a Chi-Squared analysis or by determining strength of correlation or causation.

Summary

Overall, this study raises questions about the practice of labeling a set of behaviors as positive or negative. Participants in this study indicated that certain instructor nonverbal behaviors could actually work in both positive and negative ways to impact learner affect and learner perceptions of instructors. Furthermore, participants in this study revealed important differences in the way they perceive differences among the nonverbal behaviors that male and female instructors display in the classroom. These findings indicate a need for further research into college students' perceptions of the nonverbal messages male and female instructors display in the classroom.

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